



# Public Works Department

*Budget Presentation*

*February 12, 2015*

## Public Works Department

- Presentation Key Points

- 
- Department Mission
  - Accomplishments
  - Programs and Services
  - Funding Sources (Department-wide & by program)
  - Program Budget(s) Overview
  - Trends and Issues
  - Questions and Answers on Budget

## Public Works Department

- Mission Statement

*To plan and implement projects, provide services that effectively create and maintain a comprehensive and successful transportation system by cultivating the public trust, promoting new ideas and technology and maintaining the County's assets responsibly and proactively.*

## Public Works Department

- **Mission Statement Objectives**

- **Provide a safe, reliable, and efficient transportation system that delivers economic opportunity and enhances quality of life in Brevard County.**
- **Design and construct high quality transportation improvement projects, while ensuring taxpayer dollars are well spent.**
- **Maintain Brevard County's transportation infrastructure located within the Public right of way.**
- **Continuously improve the safety of citizens by designing, installing, and maintaining effective traffic management systems.**



## Public Works Department

- Accomplishments

- 193 Properties (residential & commercial) removed from Flood Zone FY 2013/2014
- Thousands of additional properties removed from Flood Zone – new FEMA Flood Insurance Rate
- \$898,504 Total savings to Flood Insurance policyholders (discounted premiums) Community Rating System (CRS)
- 2010 to Present 377.41 Road Miles Resurfaced
- Completed 24 Dirt Road Paving Projects (7.5 miles) FY 2011 to Current

## Public Works Department

- Accomplishments

- Intelligent Traffic System (ITS) Expansion from 13 to 100 Signals in 2.5 years – Grant Money
- 50.8 Million in Grants for projects
- Palm Bay Road Culvert Pipe - Completed
- St Johns Heritage Parkway – Under Construction
- Barnes Boulevard - Under Construction
- Technology - iWork Work Management System Implementation
- Staff continuously reviewing & optimizing

# Public Works Department

- Programs & Services

## Public Works Department

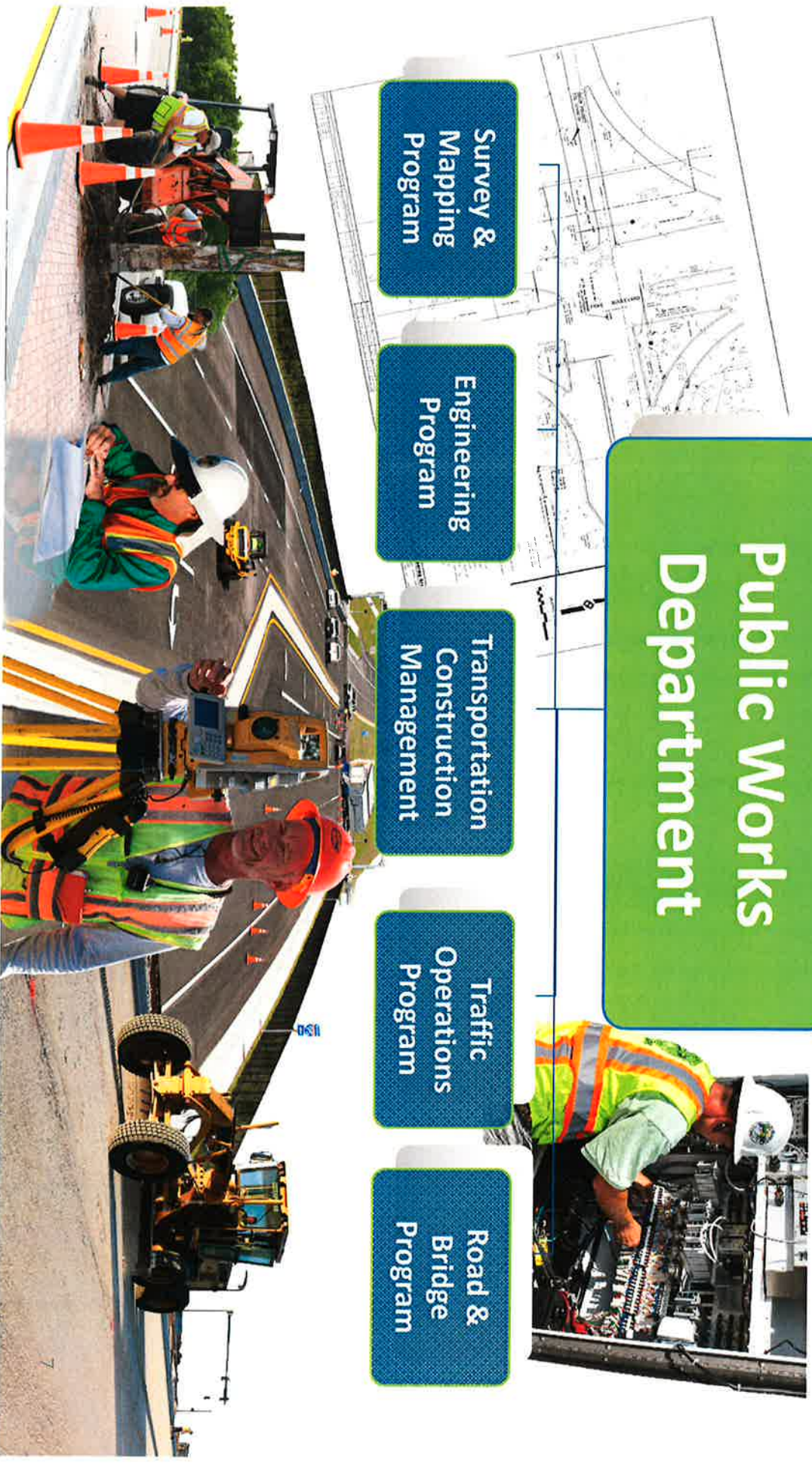
Survey &  
Mapping  
Program

Engineering  
Program

Transportation  
Construction  
Management

Traffic  
Operations  
Program

Road &  
Bridge  
Program



# Public Works Department

- Programs & Services

## Public Works Department

### Survey & Mapping Program



Engineering Program

Transportation Construction Management

Traffic Operations Program

Road & Bridge Program



## **Survey & Mapping Program**

### **Survey Services**

- Provide professional surveying and mapping services, to include GIS Mapping services for Brevard County and other Municipalities.

### **Vacating Services**

- Provide vacating services to the Public for vacating County right-of-way and easements by providing efficient services.

### **Map Reproduction Services**

- Provide document and wide-format scanning for customers County-wide. Map Reproduction has been integral in converting paper into electronic file formats, thus reducing storage space and increasing accessibility.

## Public Works Department

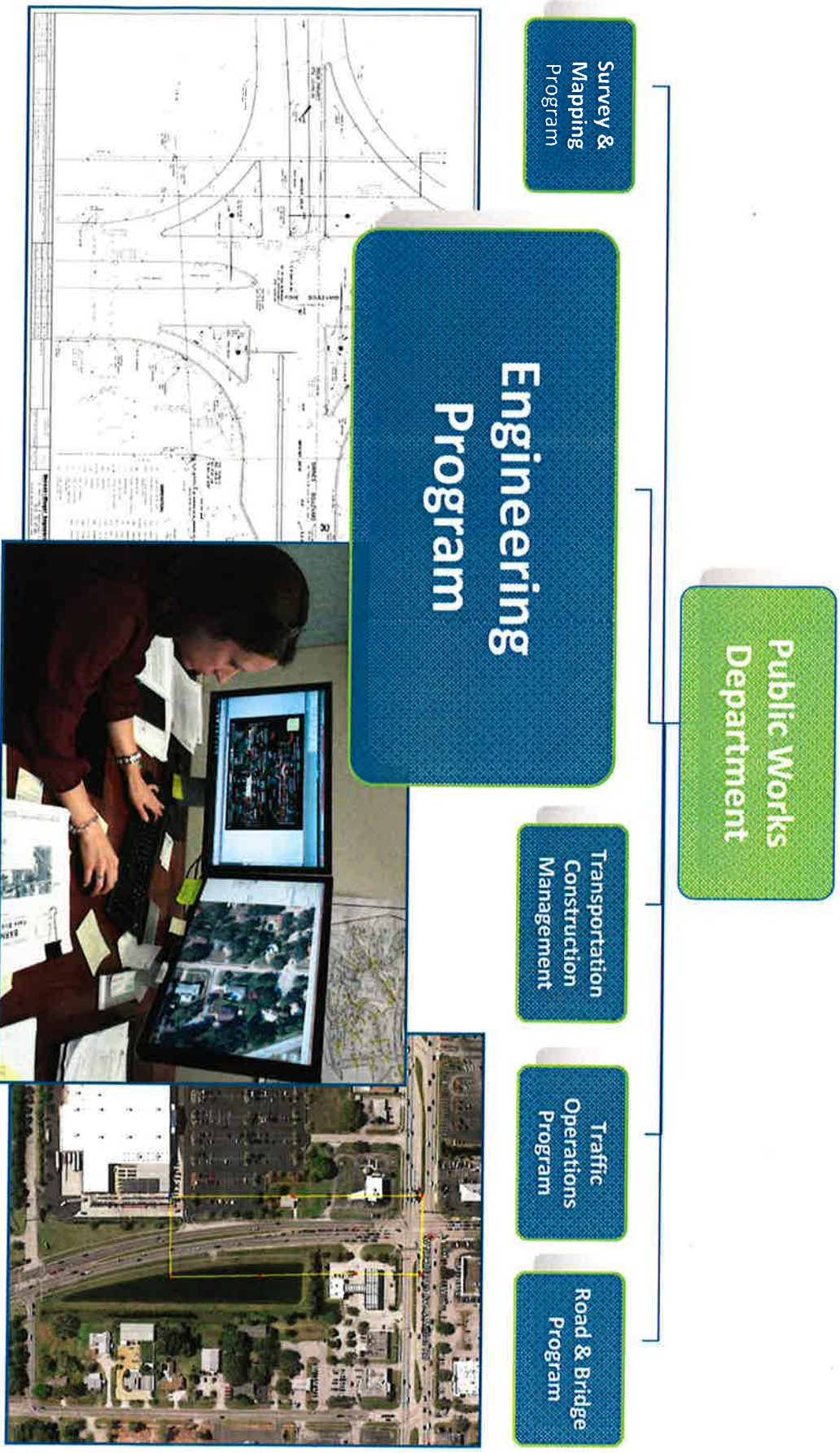
- Programs & Services

### Survey & Mapping Program Trends & Issues

- Technology has helped to Keep Budgets Down
- High Tech Trend - Requires Staff Training
- Highly Trained Staff are easy poaching targets due to low salaries

# Public Works Department

- Programs & Services



# Public Works Department

- Programs & Services

## Engineering Program

### Engineering Review

- Ensure proposed improvements are in compliance with Land Development regulations.

### Engineering Inspection

- Provide inspection services for Planning and Development & County Right of way issued permits

### Flood Zone Service

- Floodplain Management services to all Brevard County Citizens. Community Rating System (CRS)

### Engineering Design Service

- Design & Drafting Services for Construction Projects

## Public Works Department

- Programs & Services

### Engineering Program Trends & Issues

- Highly Trained and Technical staff is required
- Low Salaries make staff poaching easy. Lost 50% of PE(s)
- Cost of the CRS flood insurance premium discounts is going up. Threatens the CRS discount.
- Increased Dev. Pressure w/o increases to Budget (Staff) results in slower process & errors.

# Public Works Department

- Programs & Services



## Public Works Department

- Programs & Services

### Transportation Construction Management Program

#### Construction Services

- Complete Management of Capital Improvement Projects, such as, New roadways, sidewalks, signalization of intersections.

#### Contract Management Services

- Oversee and administer 260 contracts associated with Capital Improvement Projects.

#### Land Acquisition Service

- Right of Ways
- Maintain Records
- Development Review
- Acquire Land for CIP Projects & other County agencies

## Public Works Department

- Programs & Services

## Transportation Construction Management Program

### Trends & Issues

- **Highly Trained and Technical Staff is required**
- **Low Salaries makes staff poaching easy**
- **Increased Development Pressure w/o increases to Budget (Staff) results in more errors**

# Public Works Department

- Programs & Services



# Public Works Department

- **Programs & Services**

## Traffic Operations Program

### Traffic Signals Service

- First Responder for emergencies. Maintain over 326 Traffic Signals; 900 Streetlights; 157 flashers! Collects Traffic counts; Emergency response in natural disasters to restore traffic safety.

### Traffic Signs Service

- Manufactures and installs new signs County-wide. Maintains approximately 60,000 signs.

### Pavement Marking Service

- Maintain striping on over 1000 miles of county roads. Maintain pedestrian crosswalks.

### Intelligent Transportation System

- About 100 signalized Intersections on the system.

## Public Works Department

- Programs & Services

### Traffic Operations Program Trends & Issues

- **7 Traffic Technicians Maintain:**
  - 326 Signals
  - 157 Flashers (Schools/4-way stop, warning)
  - 900 Streetlights
- **According to FHWA Traffic Signal Operations & Maintenance Staffing Guidelines we should have 9 signal technicians for signals only but we also have flashers and streetlights as well**

## Public Works Department

- **Programs & Services**

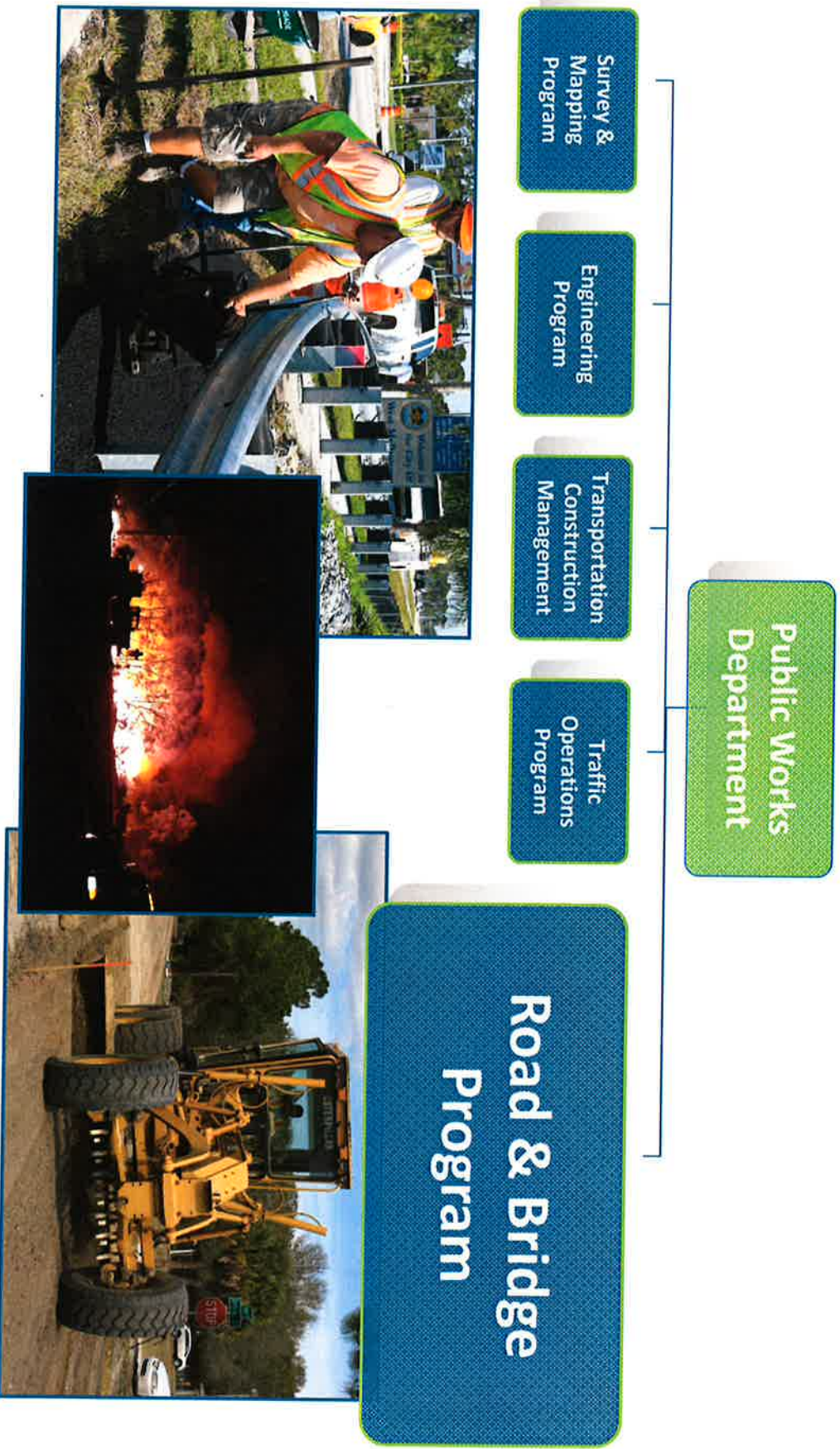
### Traffic Operations Program

#### Trends & Issues

- **Highly Trained and Technical Staff is required**
- **Low Salaries makes staff poaching easy**
- **Increased Maintenance Responsibilities w/o increase to staff, threatens public safety**

# Public Works Department

- Programs & Services





# Public Works Department

- **Programs & Services**

## Road & Bridge Program

**Roadway  
Maintenance  
Service**

- First responder for emergencies, including Fire Support and chemical spills; maintain all County Right of ways, ditches, and roadways.

**Landscape  
Operations  
Service**

- Maintains all County (unincorporated) right-of ways, medians, and berms. Provides expert level arbor services County-wide.

**MSBU/Special  
Assessments  
Service**

- Municipal Service Benefit Unit Program is a mechanism for property owners within unincorporated areas of the County to receive services they do not have, such as, water.

**New  
Construction**

- Emergency Response Services. Reconstruct and resurface Roads and Large Drainage Pipe Repair.

## Public Works Department

- Trends & Issues

### Infrastructure Inventory – Road & Bridge Program

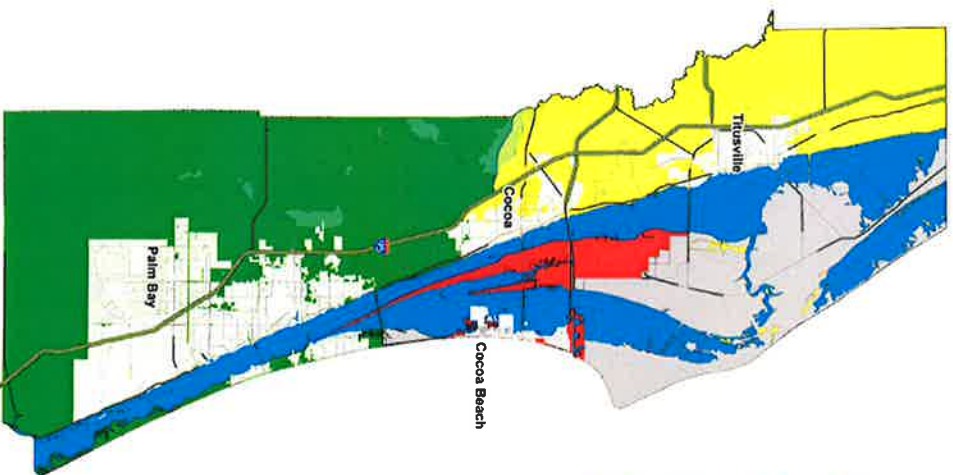
- **1,096 Miles Paved Roads**
- **82 Miles Unpaved Roads**
- **274 Miles Open Ditches (Estimated)**
- **1,040 Miles Swale Systems (Estimated)**
- **584 Miles Sidewalks**
- **63 Retention Ponds Maintained**
- **Misc. Road Grading, Tree Trimming, Sidewalk Repair, Pot Holes, etc.**

## Public Works Department

- Programs & Services

### Road & Bridge Program - Road Maintenance

Brevard County is 72 miles long and 20 miles wide consisting of 1,575 square miles with a population of over 550,000; therefore, the Maintenance Program is divided into 3 response areas.



-  North Roadway Maintenance
-  Central Roadway Maintenance
-  South Roadway Maintenance

## Public Works Department

- **Programs & Services**

### Road & Bridge Program Trends & Issues

- **Staff Turn Over is growing due to salary issues**
- **Lowers productivity & quality**
- **Increases Training costs**

## Public Works Department

- Budget Presentation

# *Funding Sources*

- ✓ Funding Sources Limitations and sources  
(Color of Money)
- ✓ Funding Sources by Program



# Public Works Department

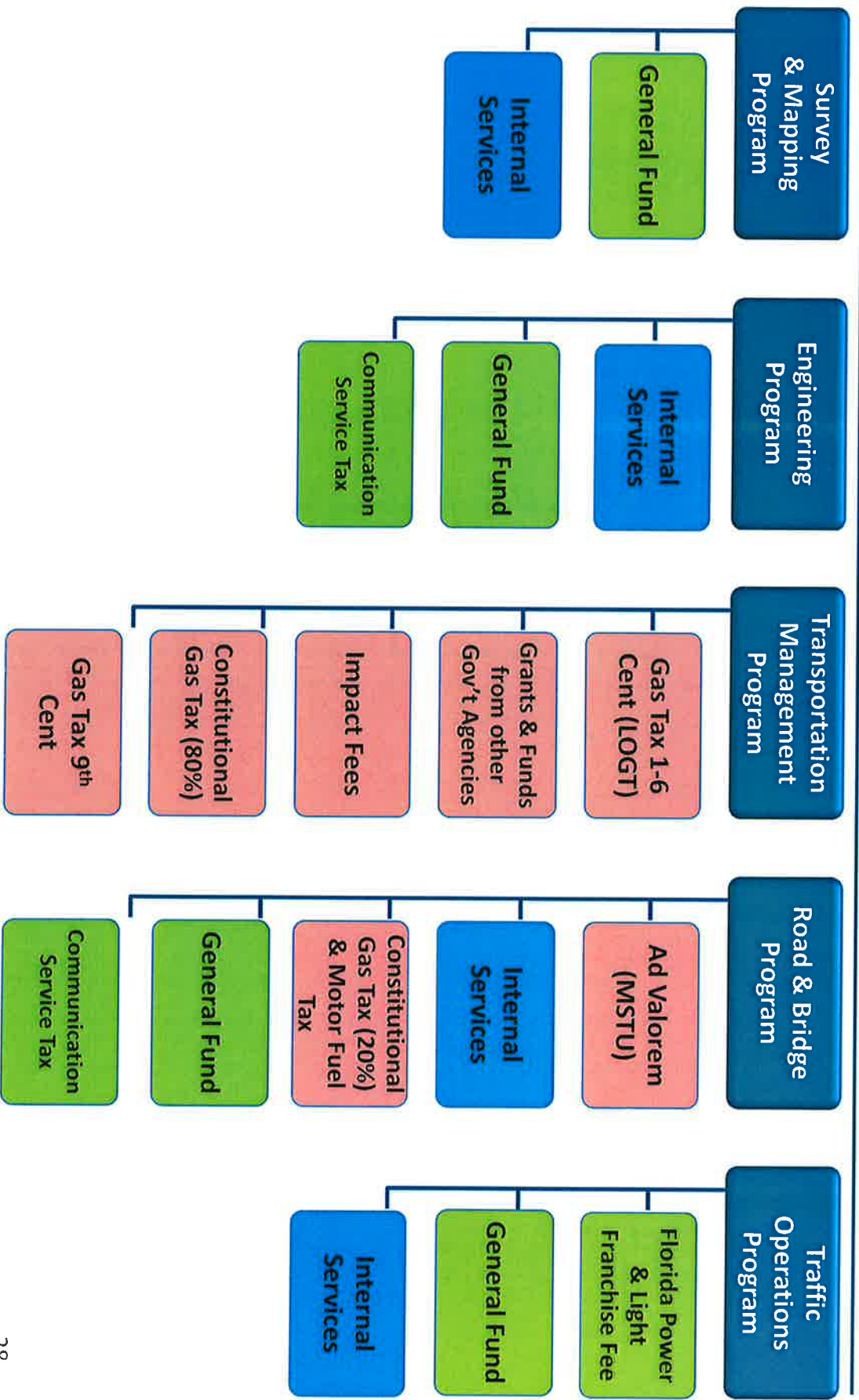
- Funding Sources

Funding Sources Matrix	Budgeted FY 2014-2015
Gas Tax 1-6 Cent LOGT (Local Option Gas Tax)	\$9,088,780
Gas Tax 9th Cent	\$799,431
Gas Tax (1-6 Cent LOGT & 9th Cent) (BF- Capital & Restricted)	\$46,367,342
Gas Tax (1-6 Cent LOGT & 9th Cent) (BF- Operating)	\$3,982,156
Constitutional Gas Tax (Capacity)	\$4,445,531
Constitutional Gas Tax (Maintenance)	\$1,177,938
Constitutional Gas Tax (BF- Capital & Restricted)	\$9,775,146
Impact Fees (BF-Capital)	\$13,550,854
Grants & Funds from other Gov't Agencies	\$23,676,851
County Fuel Tax	\$2,400,000
Motor Fuel Use Tax	\$173,000
Ad Valorem (MSTU)	\$4,680,066
Ad Valorem (MSTU) (BF- Operating)	\$3,934,611
Communications Services Tax (General Revenue)	\$615,667
FPL Franchise Fees (General Revenue)	\$3,604,820
Miscellaneous Revenue (Interest Earned)	\$490,843
Transfers	\$202,205
Statutory Reduction	(\$2,830,397)
General Fund Transfer	\$5,551,818
Receivables for Services	\$5,419,158
Receivables for Services (BF- Operating)	\$2,676,641
<b>Total Budget</b>	<b>\$139,782,461</b>

\* The Board policy requires that all funds not spent on capital Projects within a given year, must be budgeted in Reserves and carried-forward to the following year. As funds are required for the project(s) funds are moved from reserves to capital.

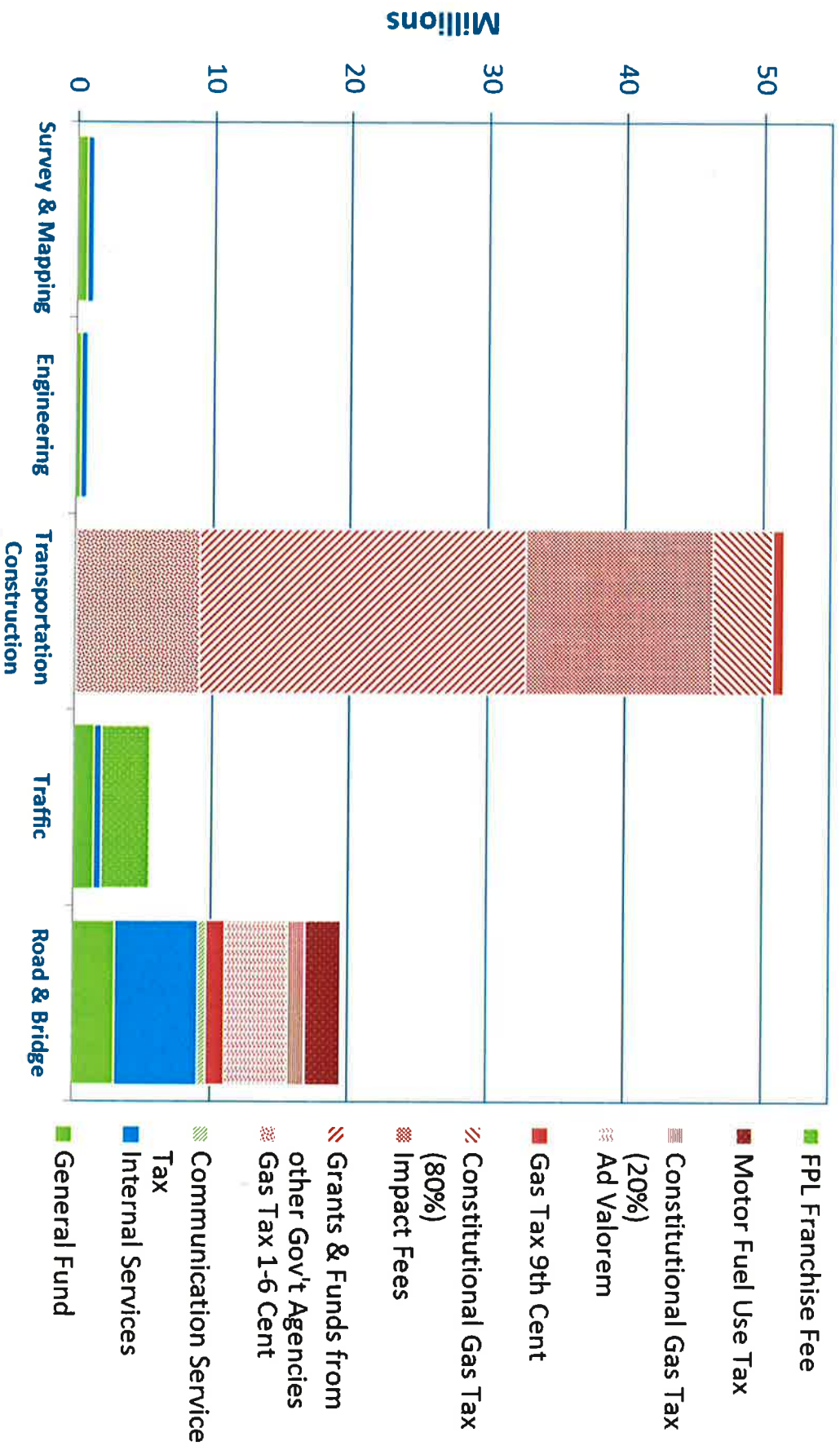
# Public Works Department

## • Funding Sources



# Public Works Department

- Funding Sources





## Public Works Department

- Funding Source Limitations

State Imposed Gas Taxes (local use)	
Constitutional Gas Tax 80%	Utilized for Projects/ Major repairs only. Funds cannot be utilized to maintain or repair State Roads <b>NOTE:</b> An average of \$2,058,750 per year of these proceeds are being utilized to pay debt services
Constitutional Gas Tax 20%	Utilized maintenance only. Funds cannot be utilized to maintain or repair State Roads
County Motor Fuel Tax	Must be used for the construction, reconstruction, and maintenance of roads.
Motor Fuel Use Tax	Must be used for the construction, reconstruction, and maintenance of roads.
Motor Fuel Tax Rebate	Utilized for construction, reconstruction, and maintenance of Roads only
Co. 9th Cent Fuel Tax (Diesel)	Any legitimate County or municipal transportation purpose

# Public Works Department

- Funding Source Limitations

Locally Imposed Gas Taxes* (local use)	Limitations
<p><b>Local Option Gas Tax (LOGT)</b> 1-6 cent</p>	<ol style="list-style-type: none"> <li>Public transportation operations &amp; Maintenance</li> <li>Right-of-Way maintenance/ equipment, structure, storage for equipment</li> <li>Right of way drainage</li> <li>Street light installation, operation, maintenance, and repair</li> <li>Traffic signs, Traffic Eng, signalization, pavement markings</li> <li>Bridge maintenance and operation</li> <li>Debt service and current expenditures for transportation capital projects (construction, reconstruction, sidewalks)</li> </ol> <p>NOTE: An average of \$1,812,500 per year of these proceeds are being utilized to pay debt services</p>
<p><b>Impact Fees**</b></p>	<p>In 2009, all residential, commercial and industrial land uses are exempt from Transportation impact fees, all other impact fees still apply</p>

\*\* 2.6 Million from Impact Fees that were suspended in 2009. All previous fees collected have been allocated to transportation projects. For planning purposes we have shown \$0 in the "FY2014 budgeted"



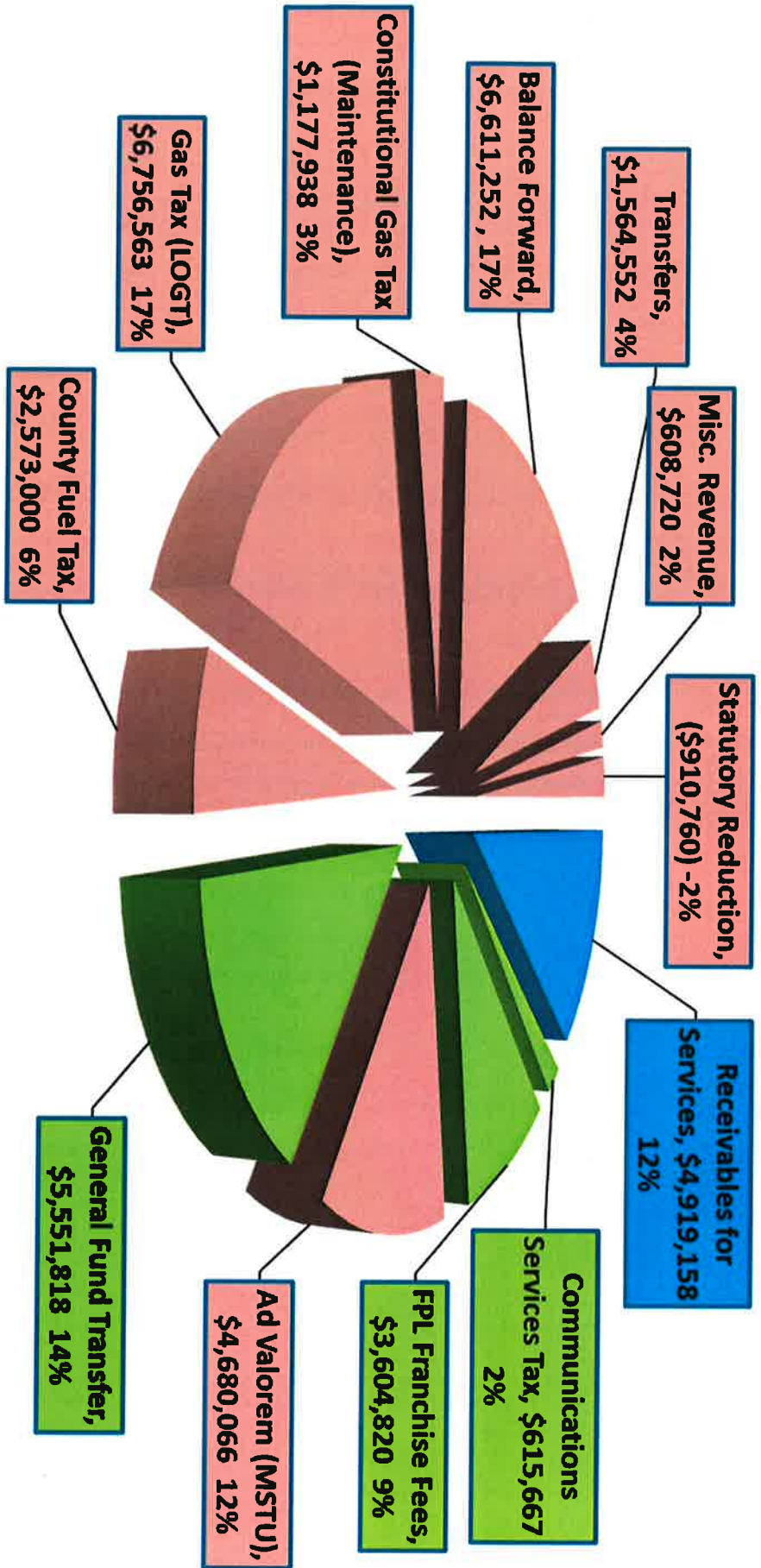
## Public Works Department

- Funding Source Limitations

REVENUE TITLE	STRINGS/ LIMITATIONS
Ad Valorem (MSTU)	Must be utilized on roads & ditches within the District in which it is collected.
Local Communication Services Tax	May be used for any public purpose, including repayment of bonds.
Franchise Fee- FPL	May be utilized for any Public purpose.
General Fund Transfer	May be utilized for any Public purpose with Statutory and Charter limitations

# Public Works Department

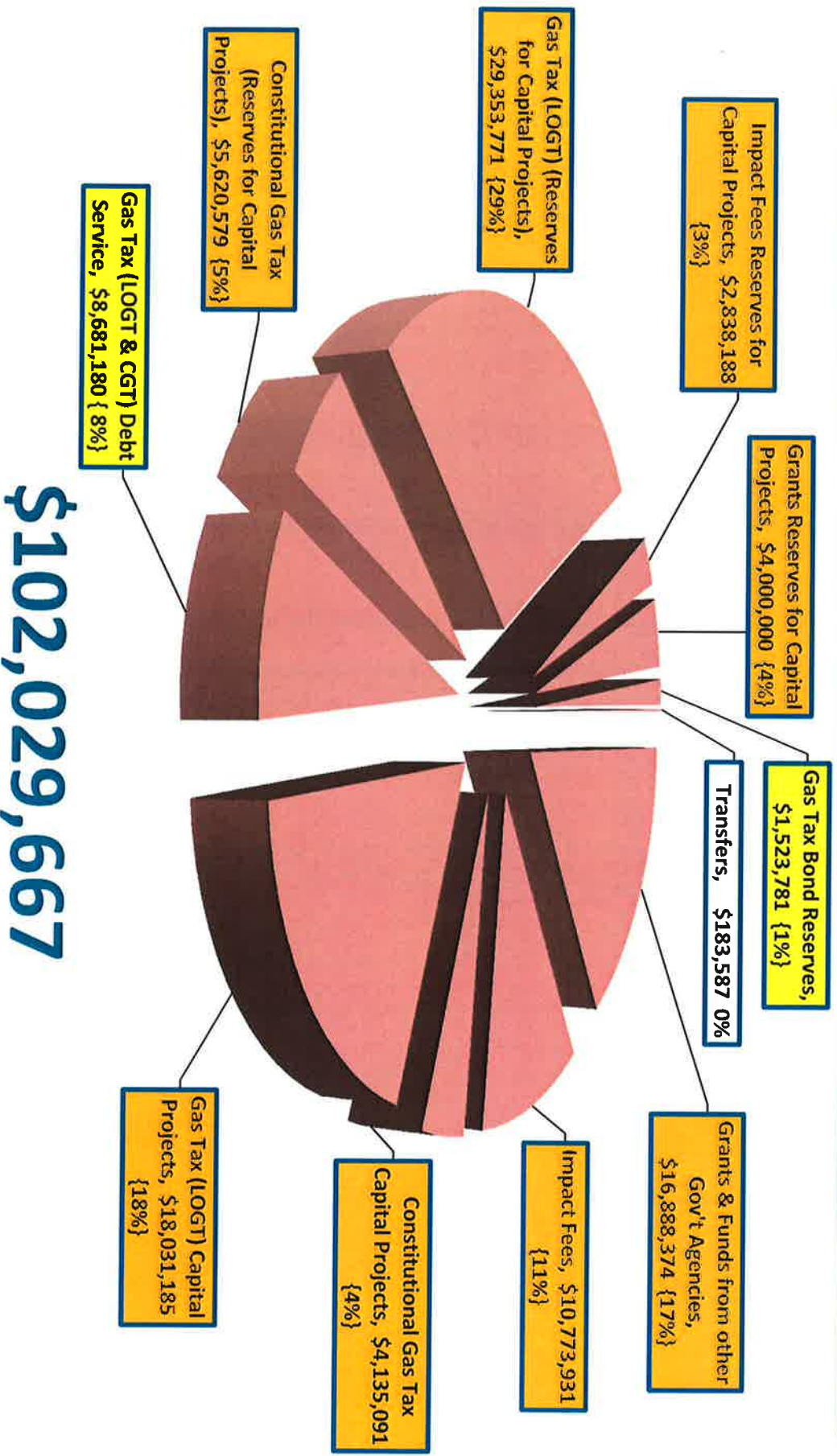
- Funding Sources - Operating



**\$37,752,794**

# Public Works Department

- Funding Sources - Capital



## Public Works Department

- Program Budget(s) Overview

# *Program*

# *Budget Overview*



# Public Works Department

- Program Budget(s) Overview

## Public Works Budget & Staffing by Program

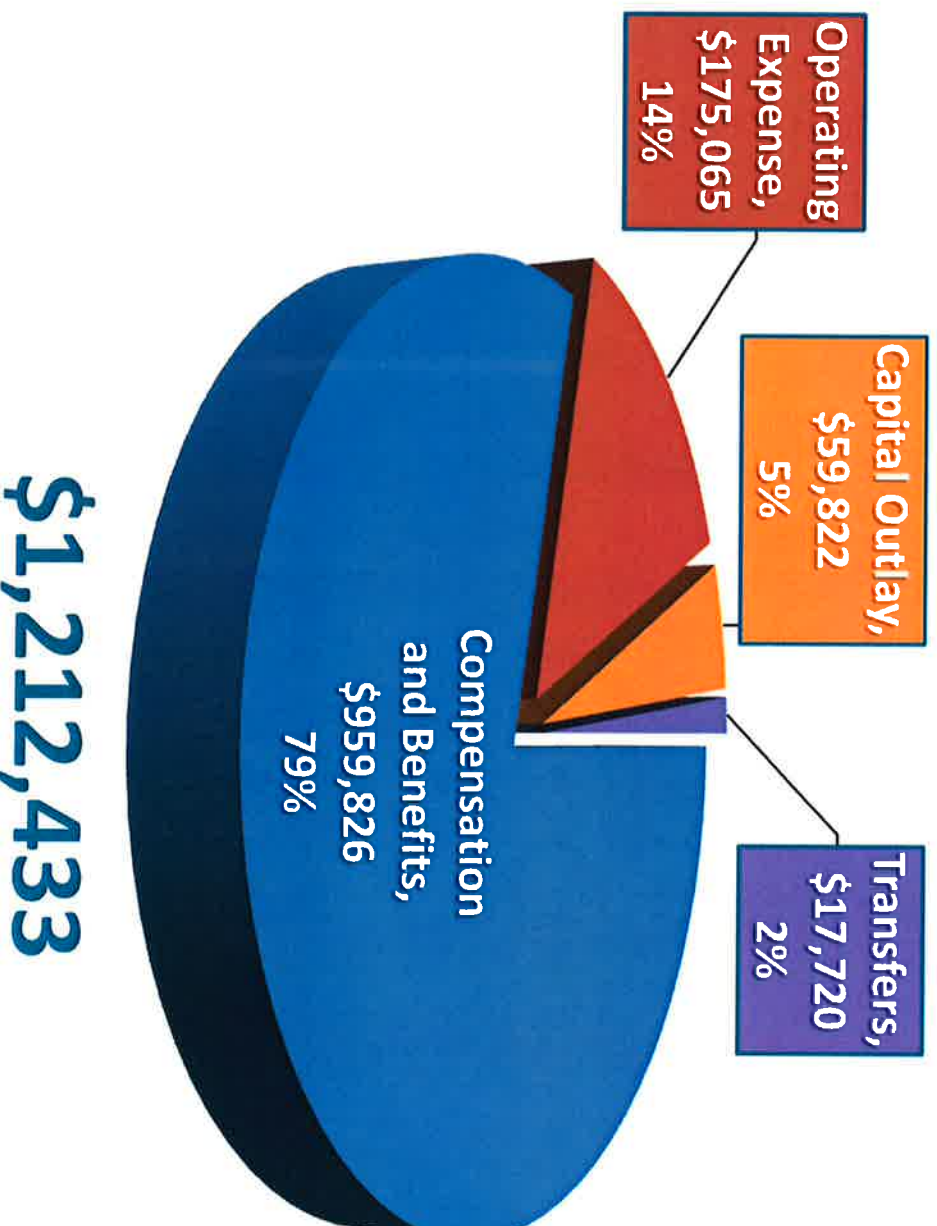
Program	Budget	% of Total Budget	FTE
Survey & Mapping Program	\$1,212,433	0.9%	15
Engineering Program	\$1,379,018	1.0%	14
Transportation Construction Mgmt.	\$6,756,563	4.8%	16
Traffic Operations Program	\$5,614,341	4.0%	27
Road & Bridge Program	\$14,340,612	10.3%	173.5
MSTU Program	\$8,425,911	6.0%	4
MSBU Program	\$23,916	0.0%	0
<b>Total Operating Budget</b>	<b>\$37,752,794</b>	<b>27.0%</b>	<b>249.5</b>

Program	Budget	% of Total Budget	FTE
Transportation Construction Mgmt.	\$102,029,667	73.0%	0
Total Capital Budget	\$102,029,667	73.0%	
<b>Total Public Works Budget</b>	<b>\$139,782,461</b>	<b>100.0%</b>	<b>249.5</b>

## Public Works Department

- Program Budget(s) Overview

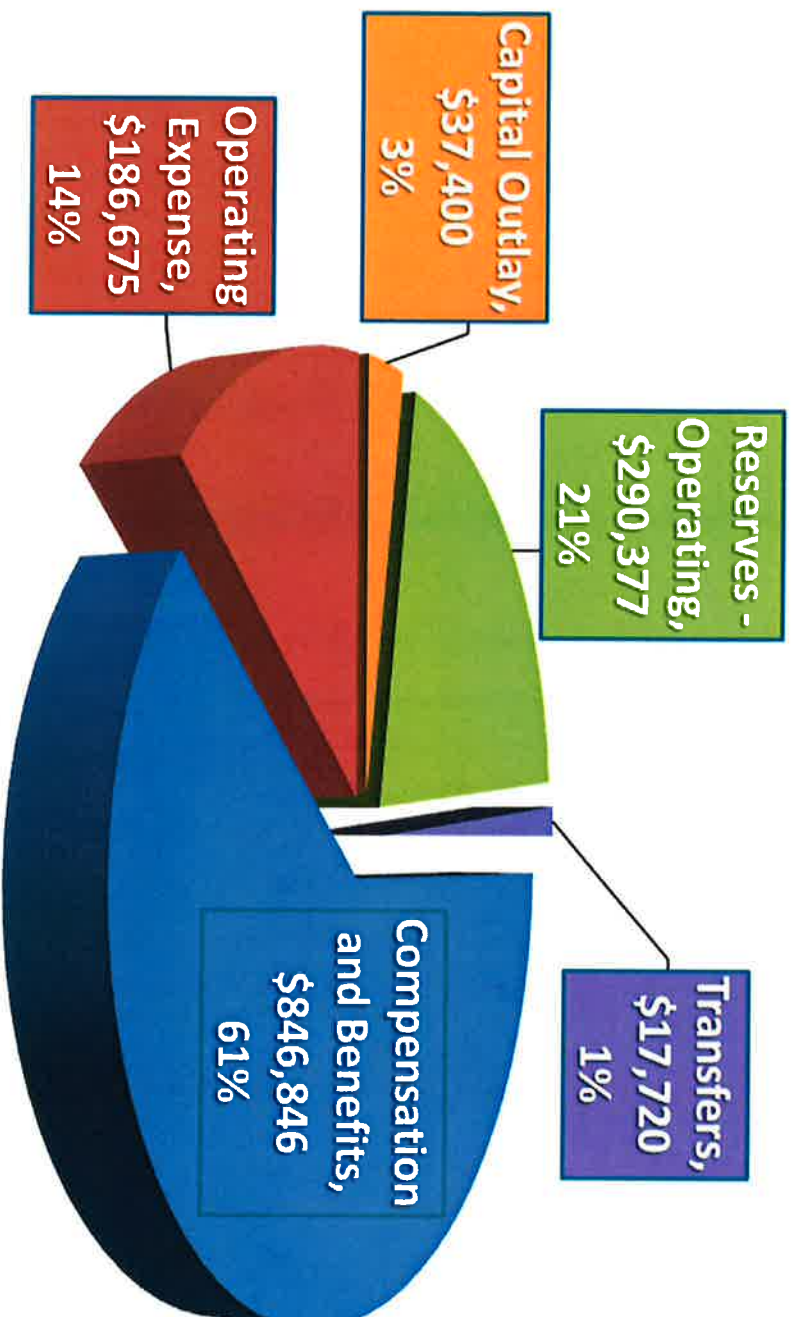
### Survey & Mapping Program Expenditures



# Public Works Department

- Program Budget(s) Overview

## Engineering Program Expenditures

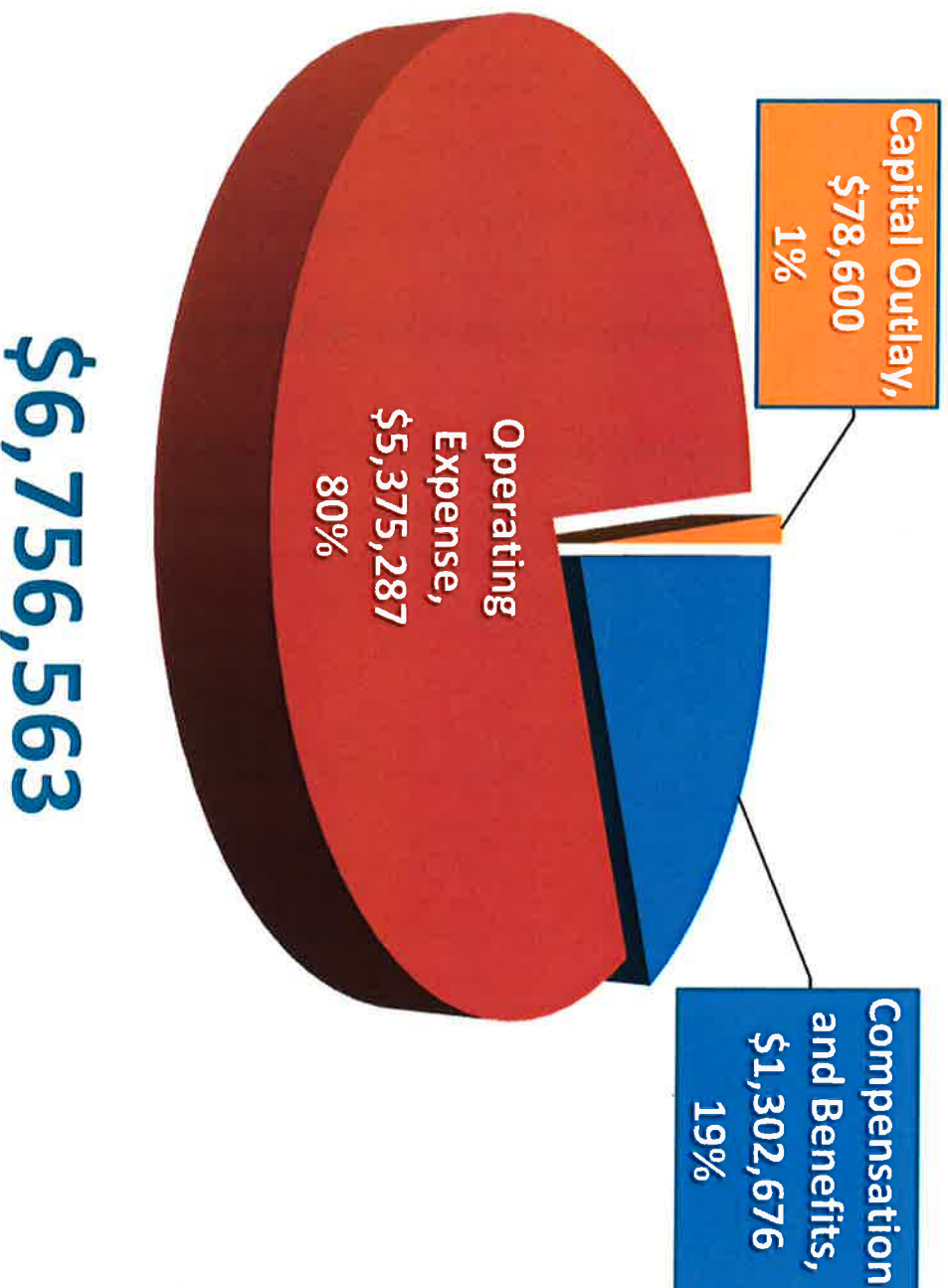


**\$1,379,018**

## Public Works Department

- Program Budget(s) Overview

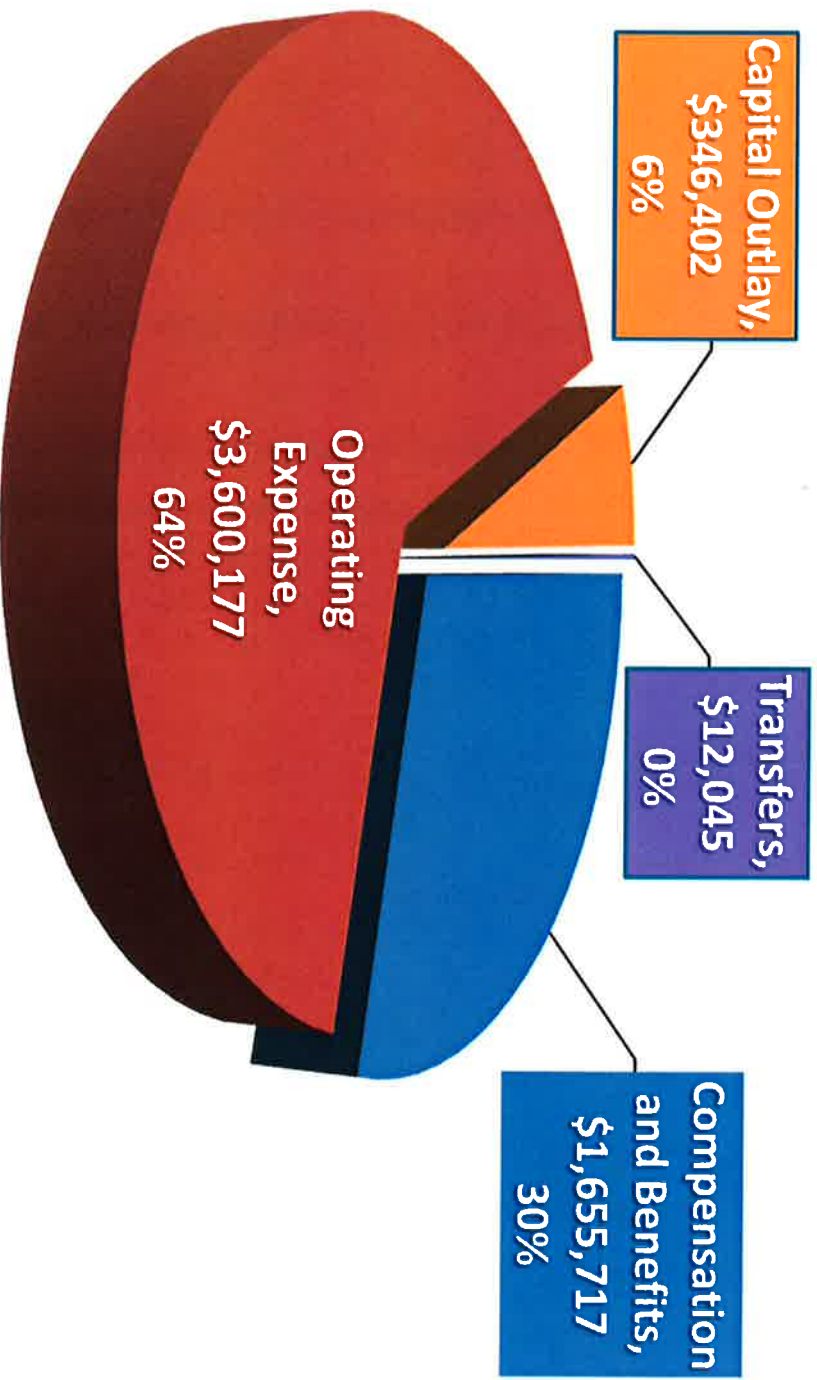
### Transportation Construction Management Program



## Public Works Department

- Program Budget(s) Overview

### Traffic Operations Program Expenditures

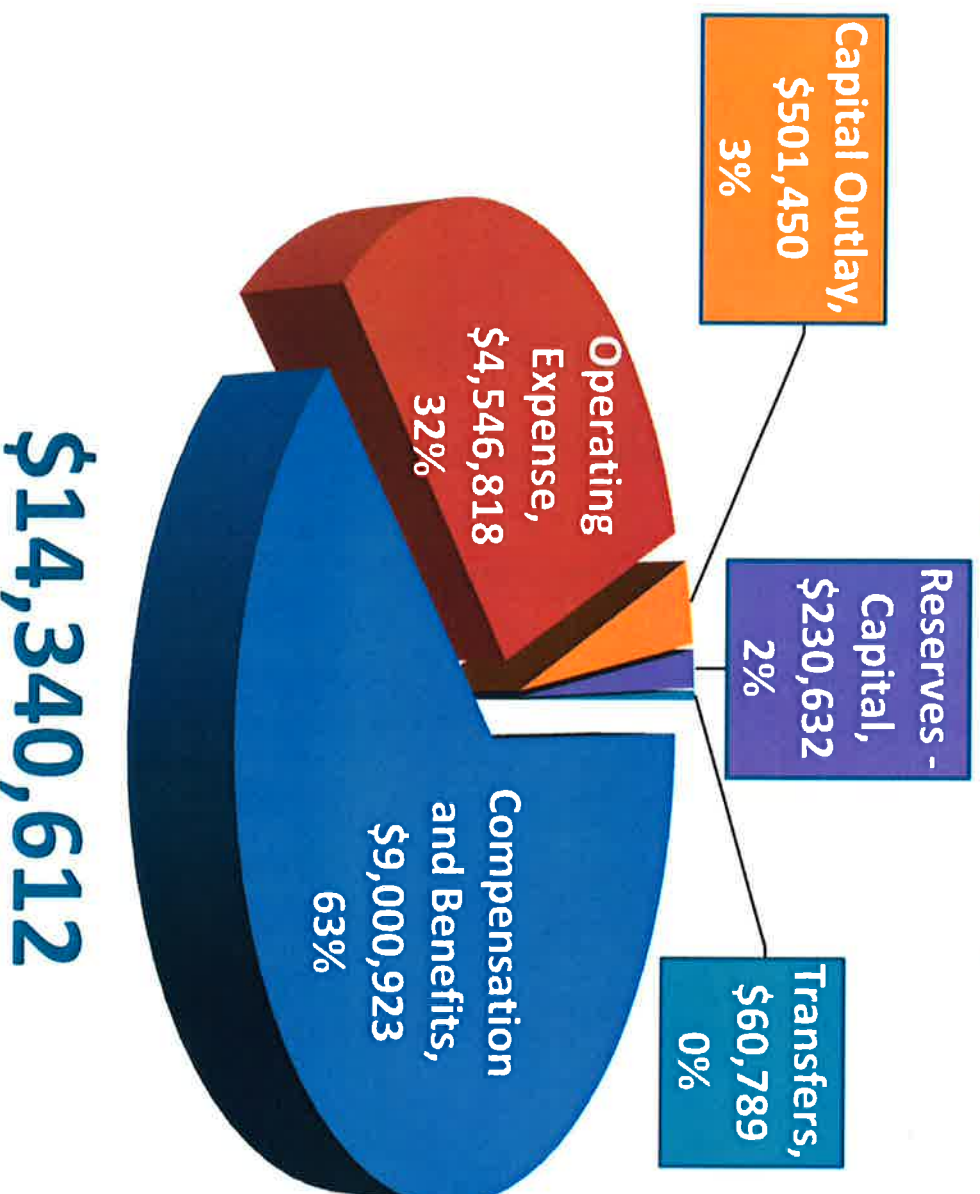


**\$5,614,341**

## Public Works Department

- Program Budget(s) Overview

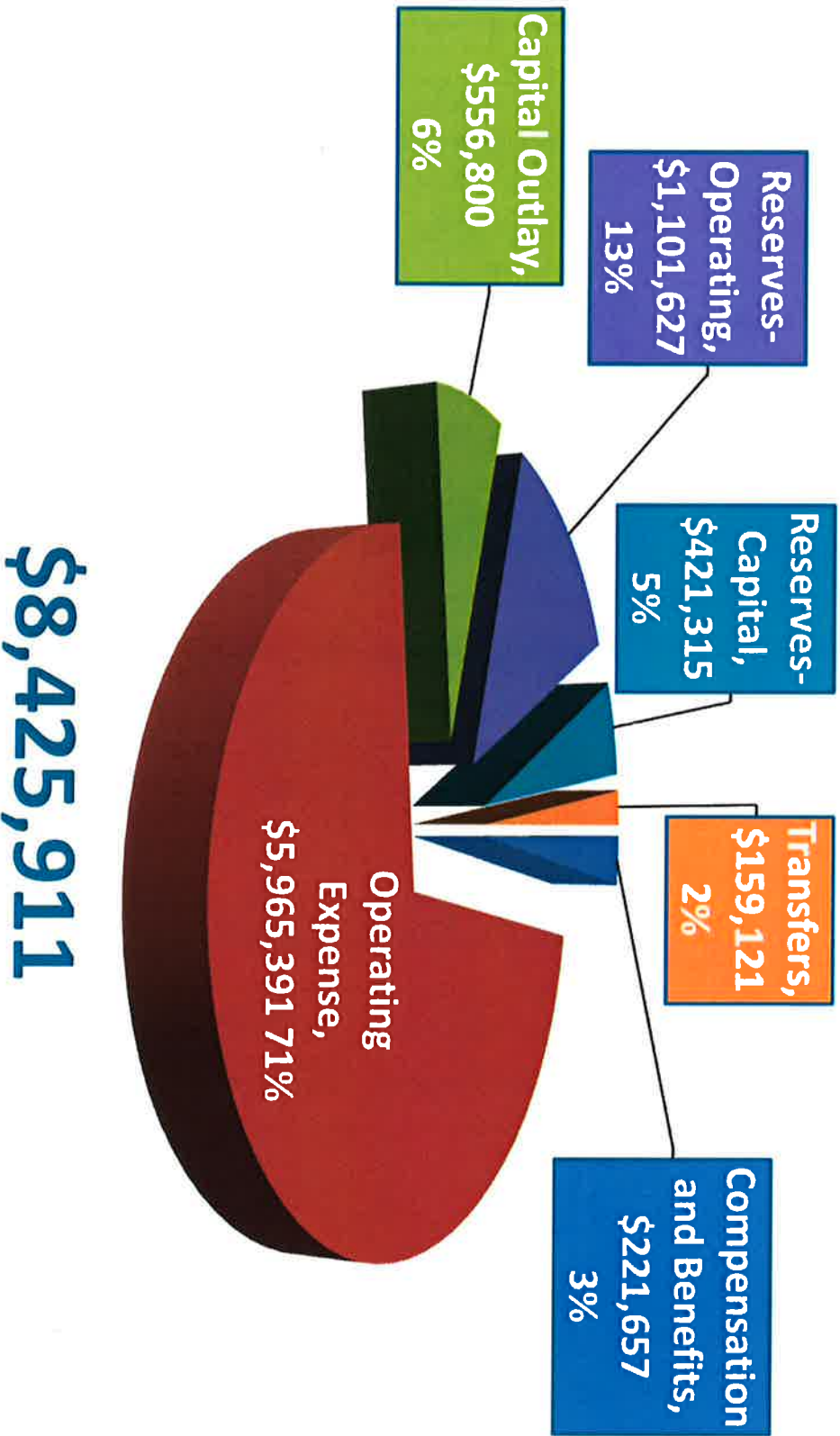
### Road & Bridge Program Expenditures



# Public Works Department

- Program Budget(s) Overview

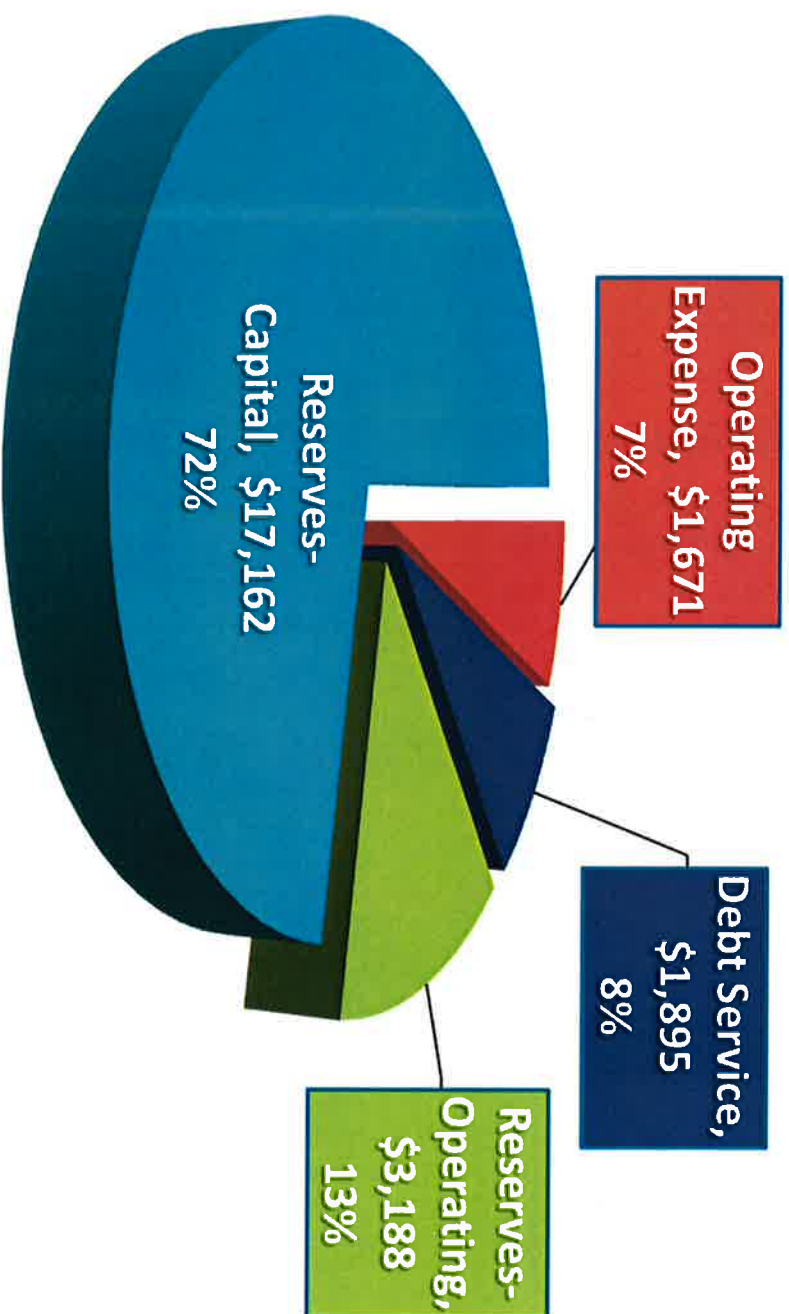
## MSTU Program Expenditures



# Public Works Department

- Program Budget(s) Overview

## MSBU Program Expenditures

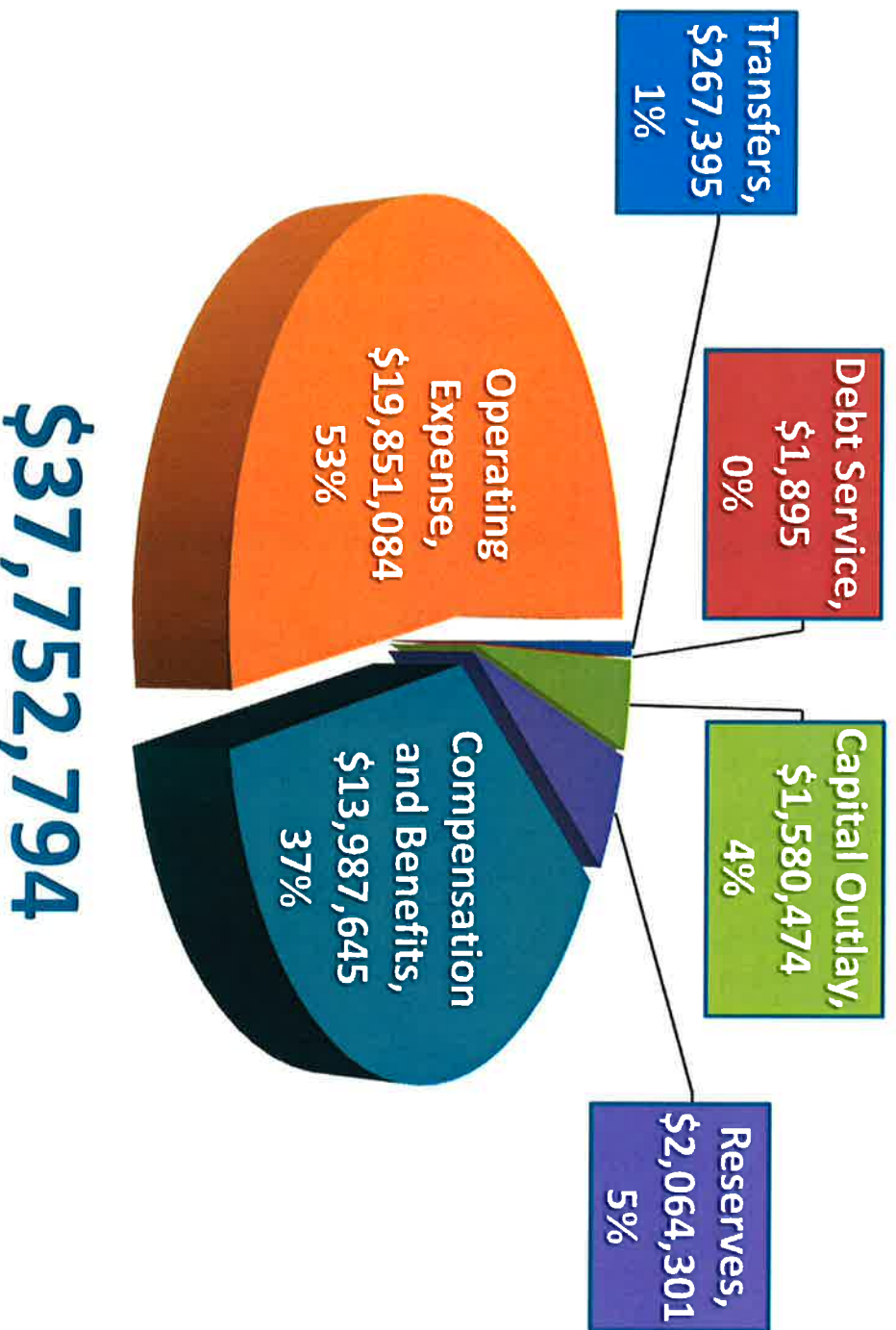


**\$23,916**

# Public Works Department

- Program Budget(s) Overview

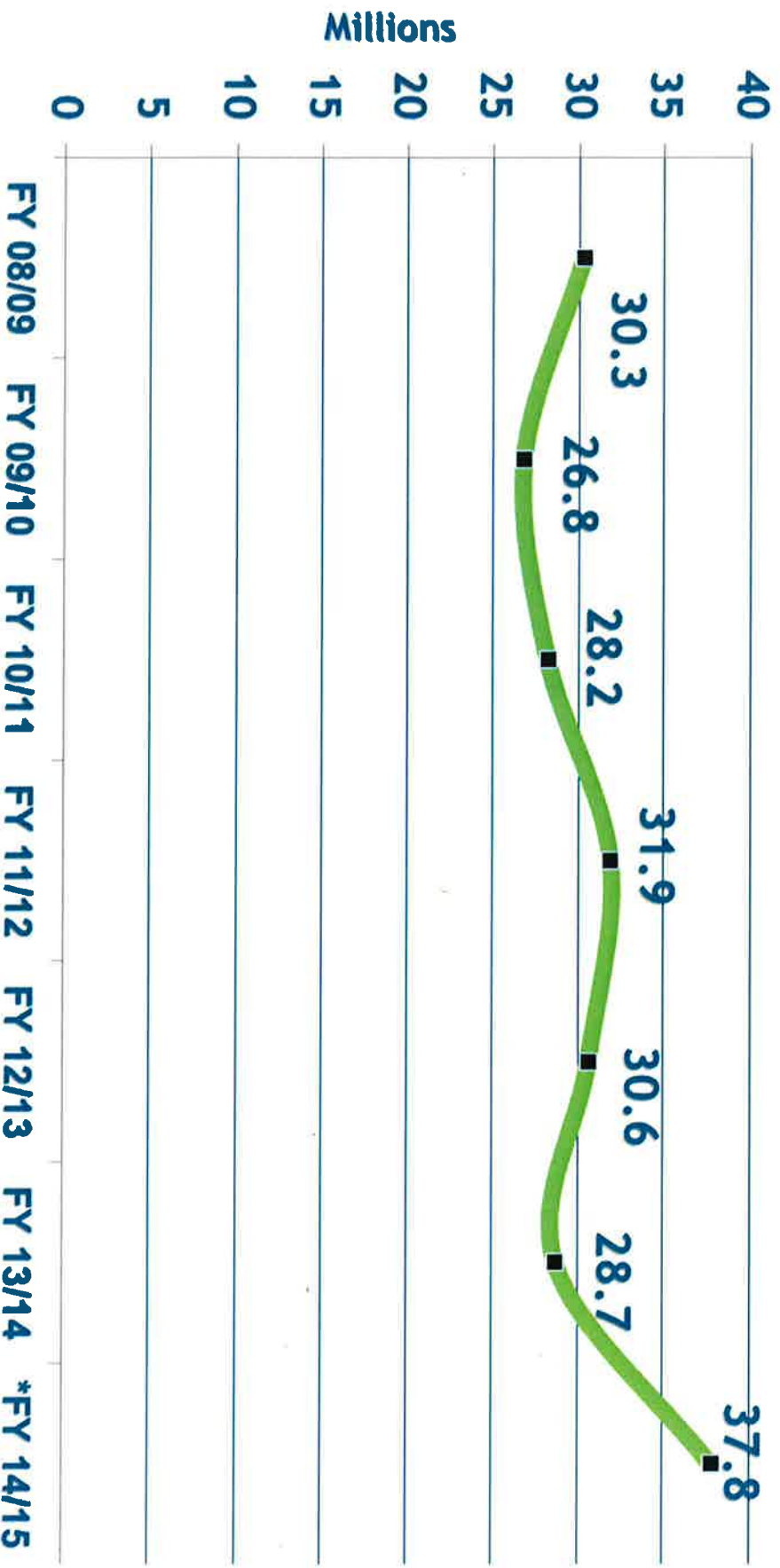
## Department Operating Expenditure Overview



# Public Works Department

- Program Budget(s) Overview

## Seven Year Operating Expenditure Trend

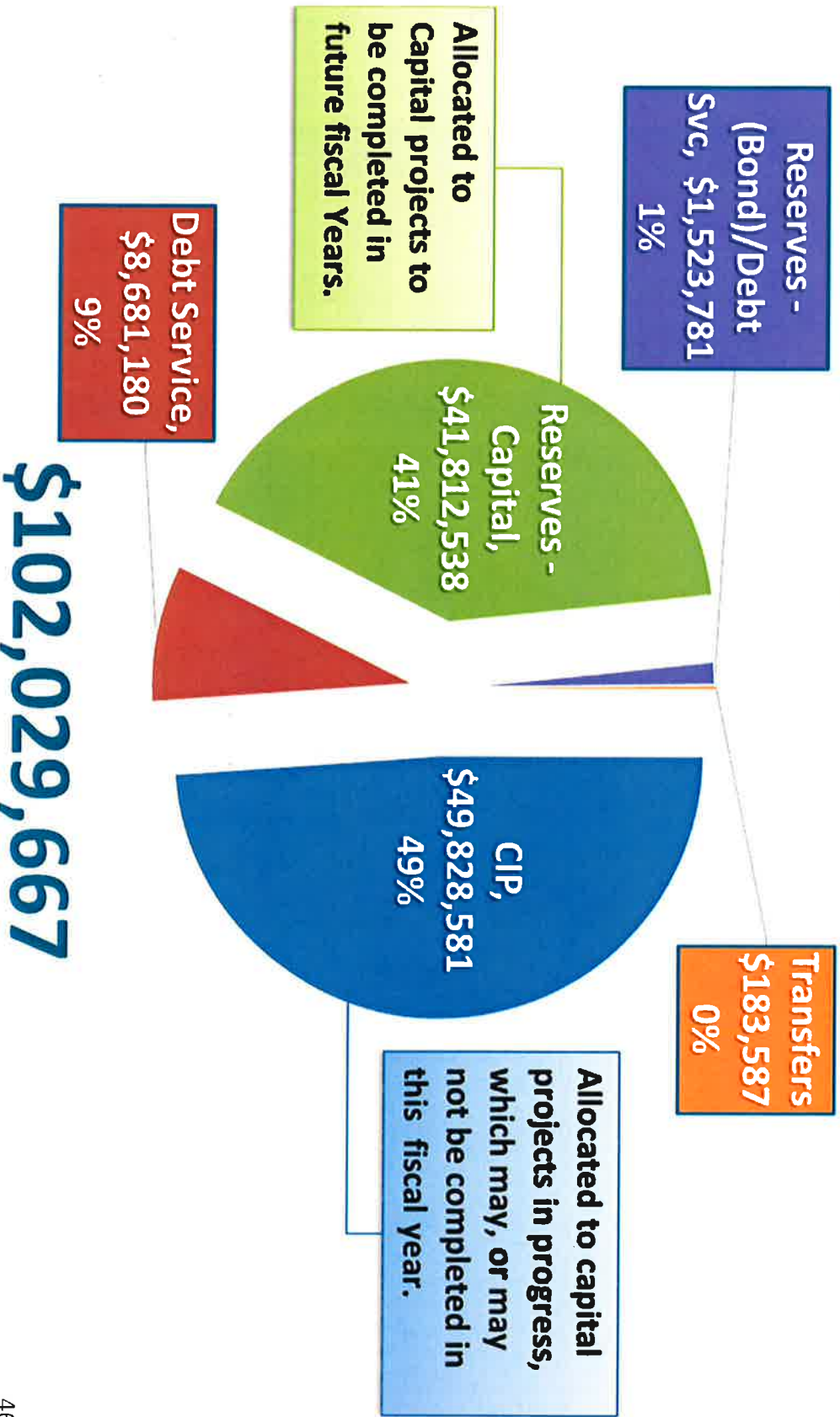


\* Adopted

# Public Works Department

- Program Budget(s) Overview

## Capital Expenditure Overview

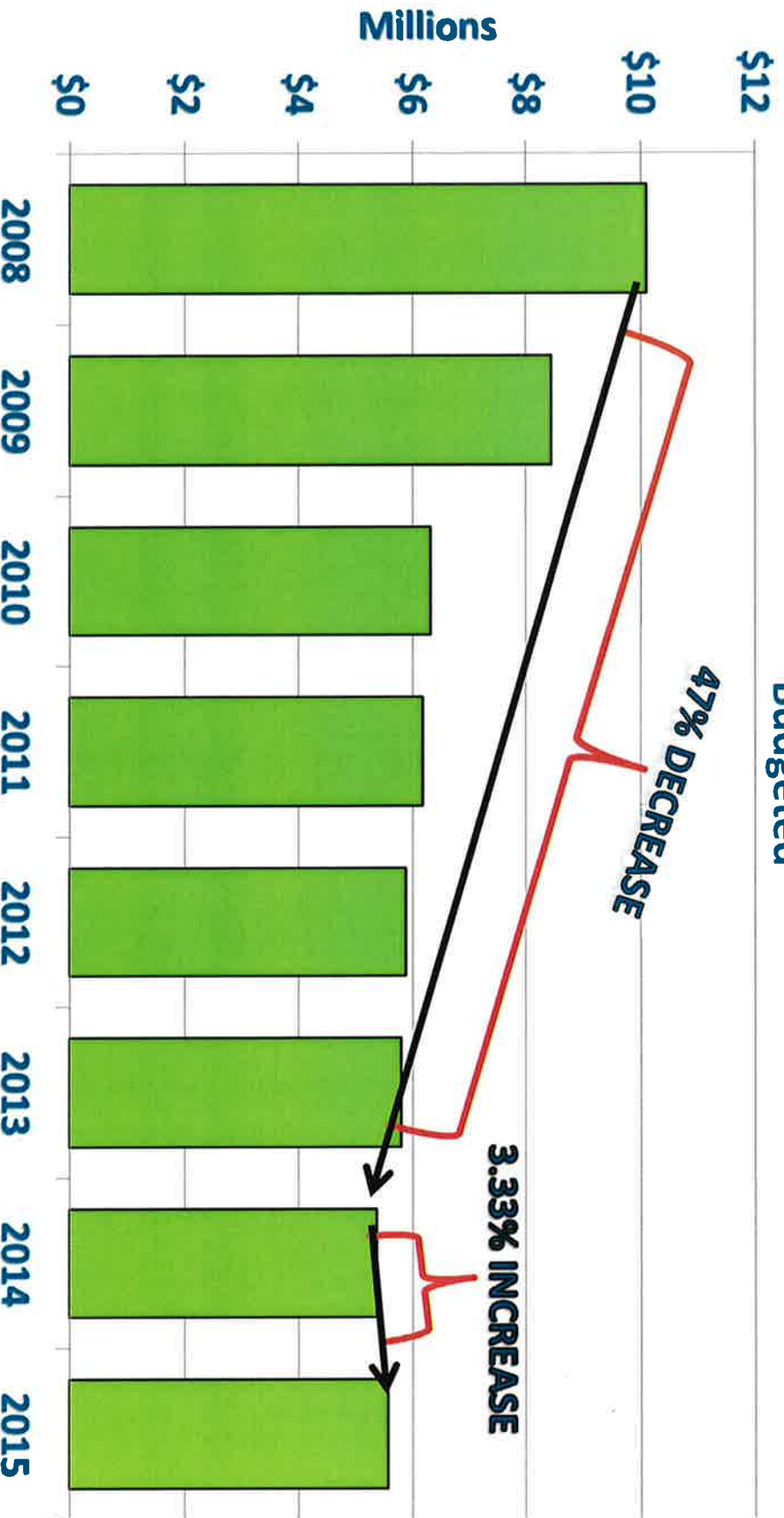


# Public Works Department

- Program Budget(s) Overview

## General Fund Transfer History

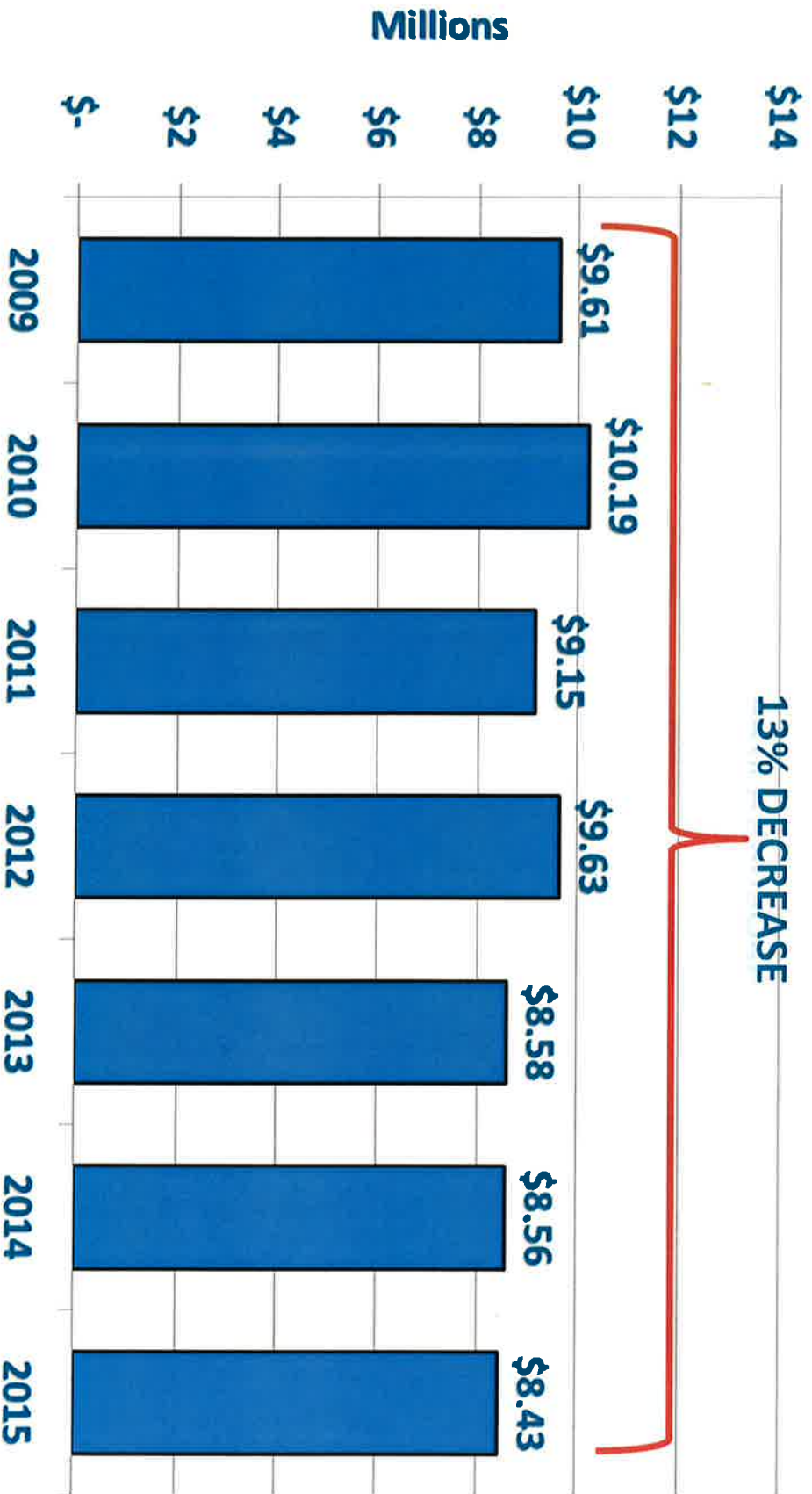
Budgeted



# Public Works Department

- Program Budget(s) Overview

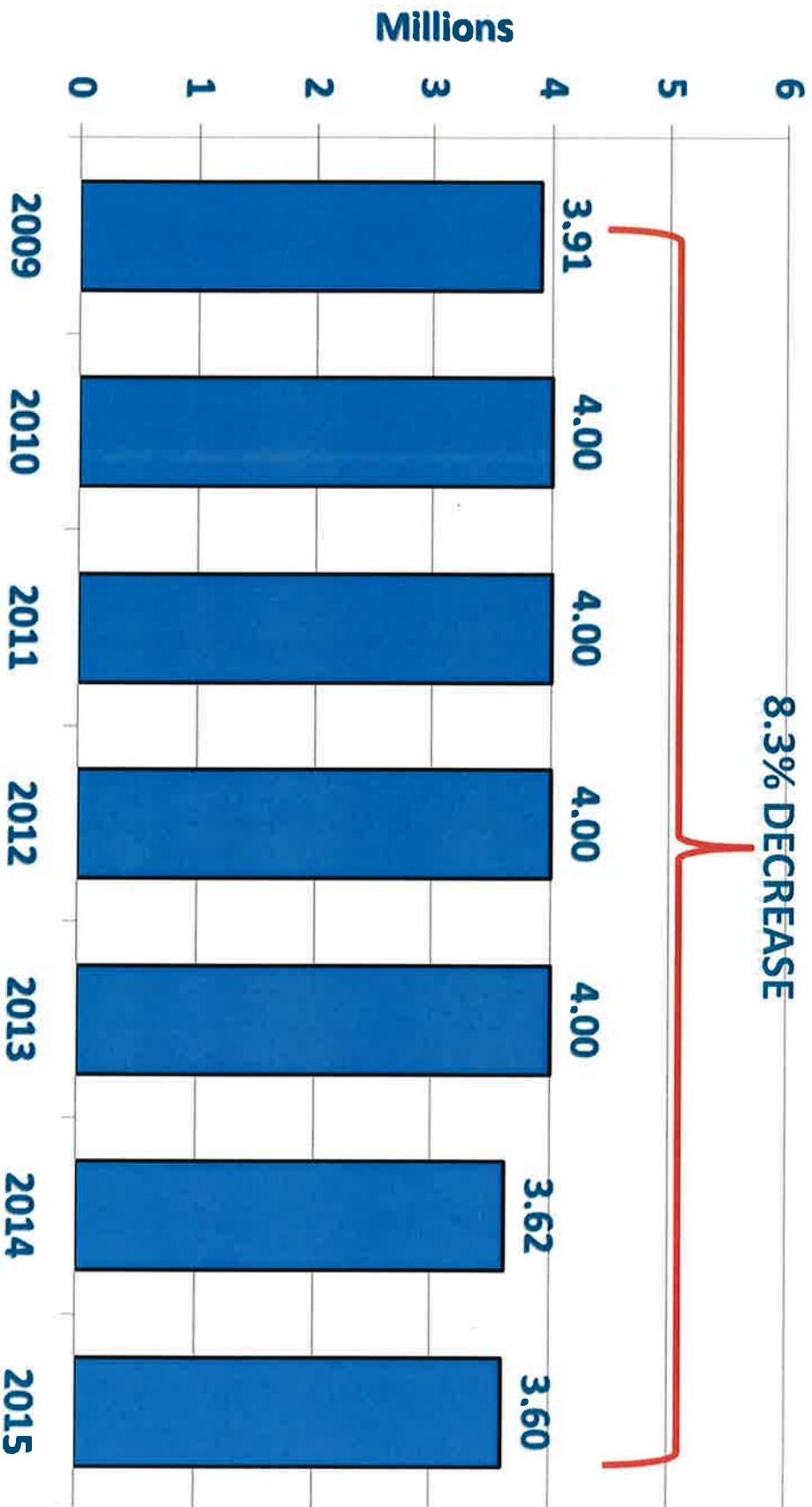
## MSTU Trend



## Public Works Department

- Program Budget(s) Overview

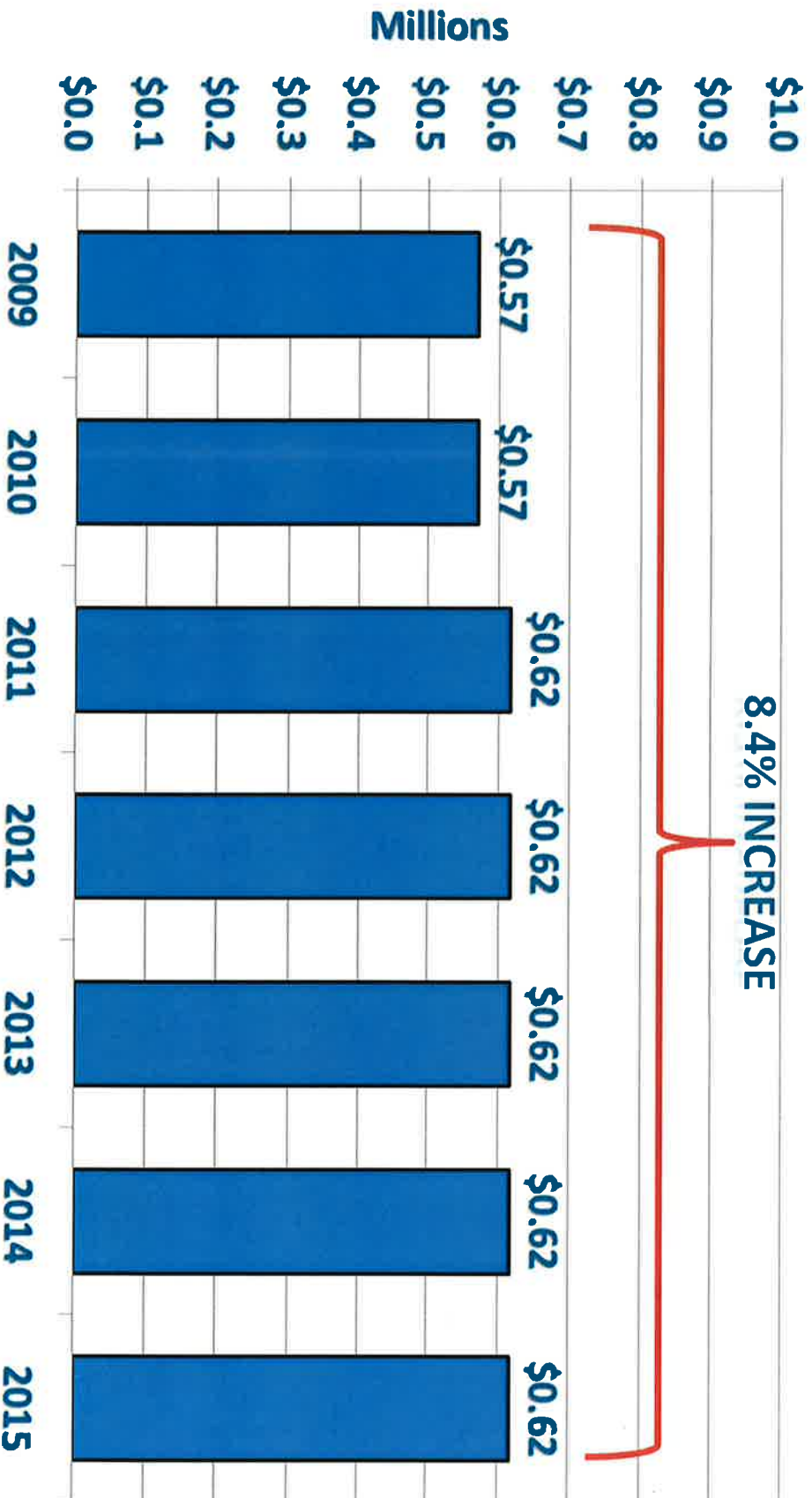
### FPL Franchise Fee Trend



# Public Works Department

- Program Budget(s) Overview

## Communications Service Tax Trend



## Public Works Department

- Trends & Issues

# *Trends & Issues*

- ✓ Department-wide
- ✓ By Program

## Public Works Department

- Trends & Issues

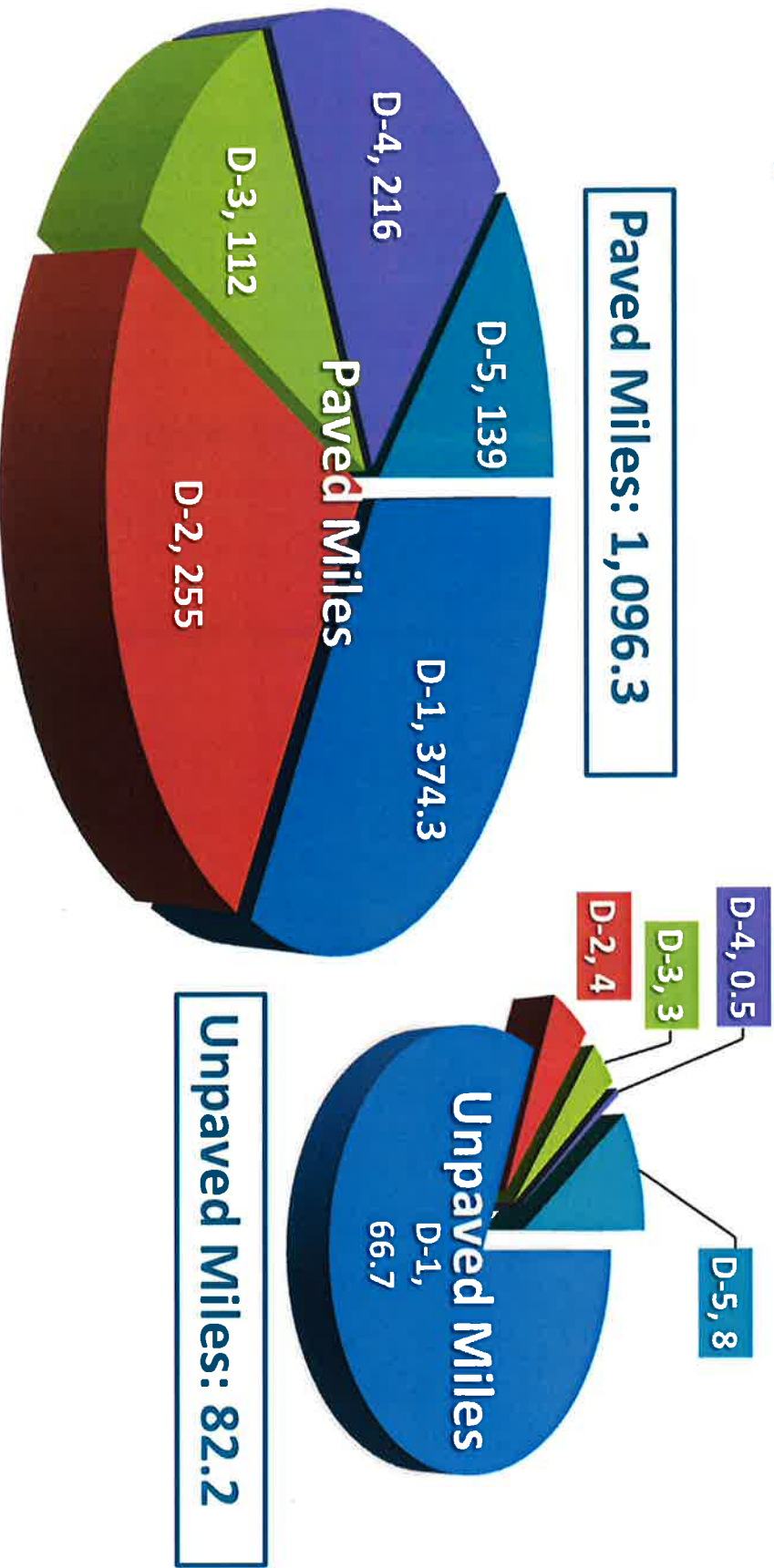
### Road & Bridge Program

- New roadway improvements are coming on line due to land development, yet there isn't sufficient funding for current requirements
- New ADA Sidewalk Requirements- new standard requires sidewalk revamp County-wide. Current funding will not be sufficient to pay for required upgrades. Costs are estimated to run between \$2-8 M a year
- Employee turnover is increasing
  - *Higher private sector wages*
  - *New hires have to be paid more than long term experienced workers.*
  - *No pay raises*

# Public Works Department

- Trends & Issues

## County Maintained Road Miles by Commission District

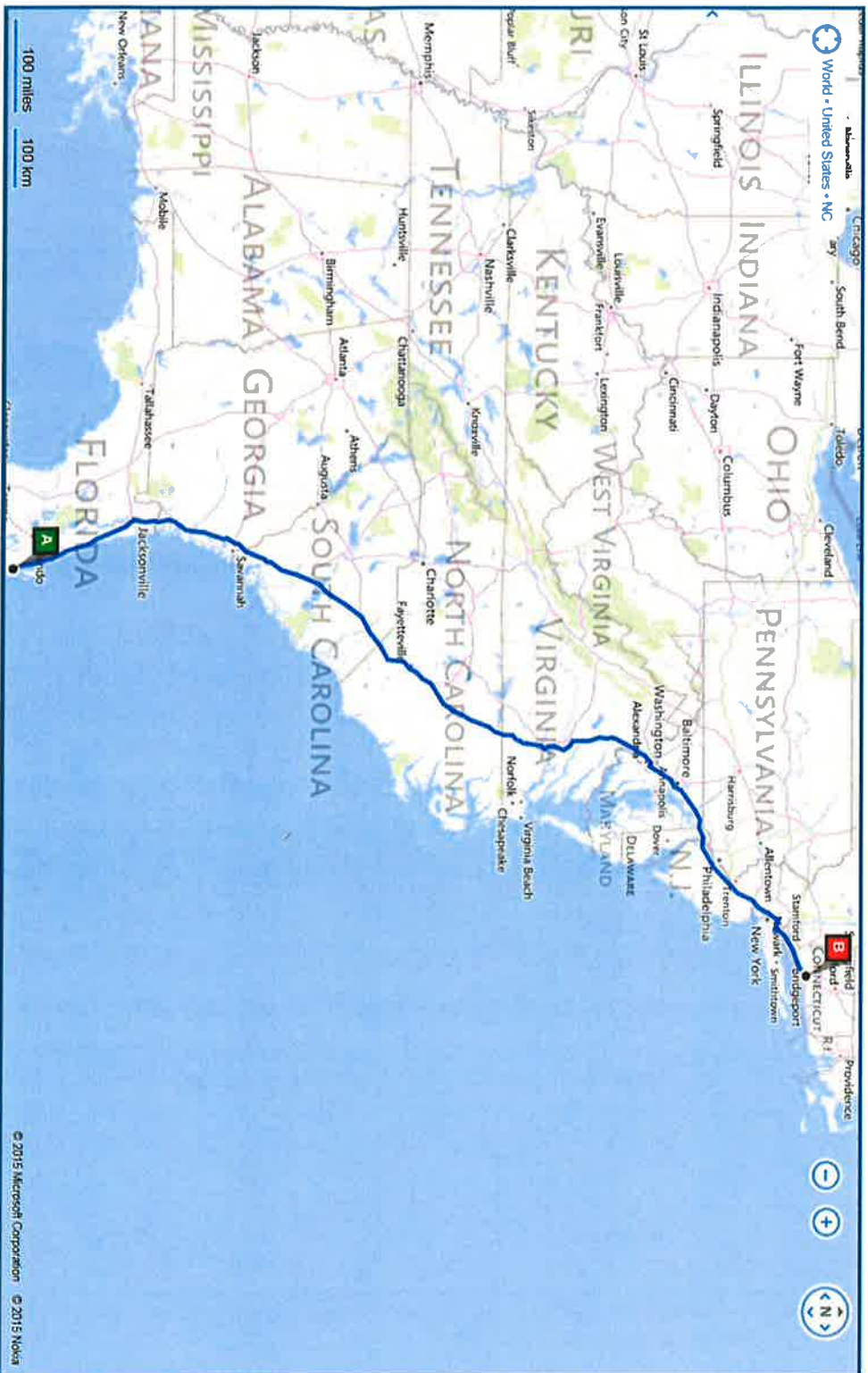


**Total Road Miles: 1,178.4**

# Public Works Department

- Trends & Issues

**1176 Road Miles = Viera FL. To New Haven CT.**





# Public Works Department

- Trends & Issues

## County by County Road Comparison

County	Paved	Unpaved	Total
Brevard*	1,096.3	82.2	1,176.4
Volusia	985.7	93.0	1,078.7
Osceola	876.6	137.0	1,013.6
Seminole	848.1	13.8	861.9
Orange	2,548.7	74.3	2,624.8
Indian River	318.4	375.6	694.0



# Public Works Department

- Trends & Issues

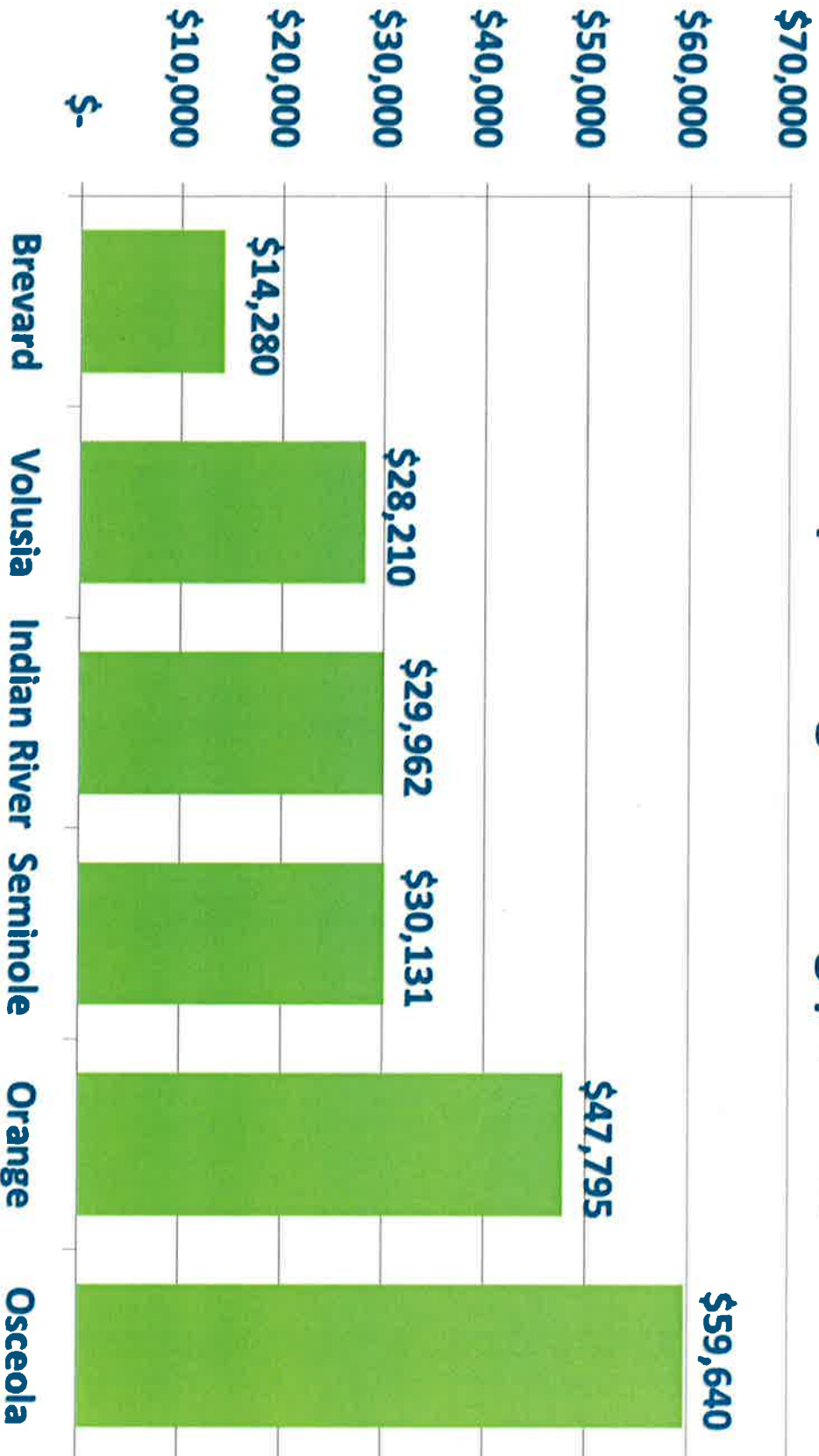
## Current Operating Funding per Mile

Revenues	Brevard	Volusia	Indian River	Seminole	Orange	Osceola
Non Fuel Taxes	\$554,681	\$10,956,302	\$15,861,577	\$13,620,953	\$90,129,964	\$48,954,396
Fuel Taxes	\$16,243,886	\$19,474,347	\$4,932,238	\$12,348,531	\$35,283,013	\$11,496,310
Total Revenue	\$16,798,567	\$30,430,649	\$20,793,815	\$25,969,484	\$125,412,977	\$60,450,706
County Roadways Miles	1,176.4	1078.7	694	861.9	2624	1013.6
Funding/Mile	\$14,280	\$28,210	\$29,962	\$30,131	\$47,795	\$59,640

# Public Works Department

- Trends & Issues

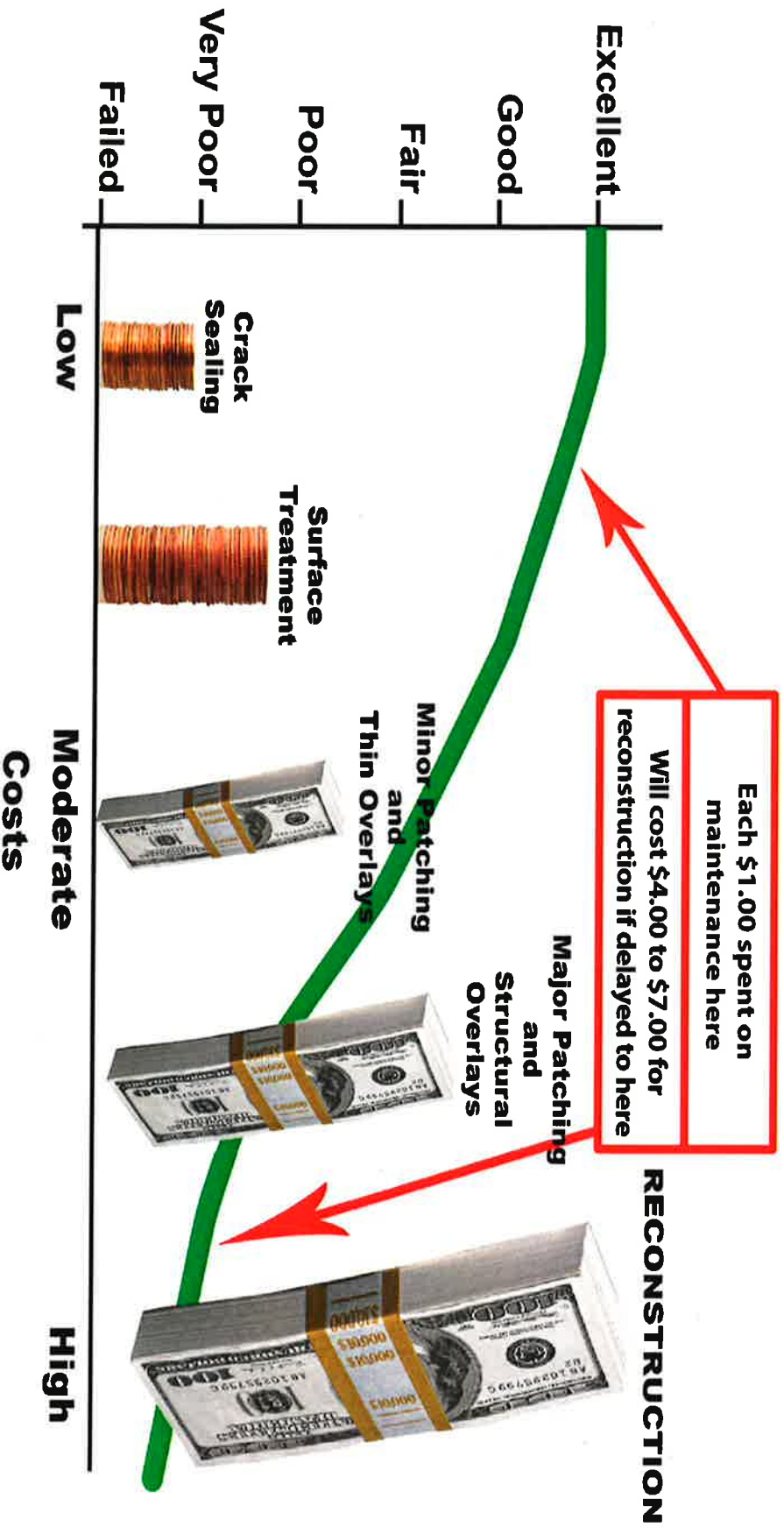
## Current Operating Funding per Mile



# Public Works Department

- Trends & Issues

## Good Roads Cost Less

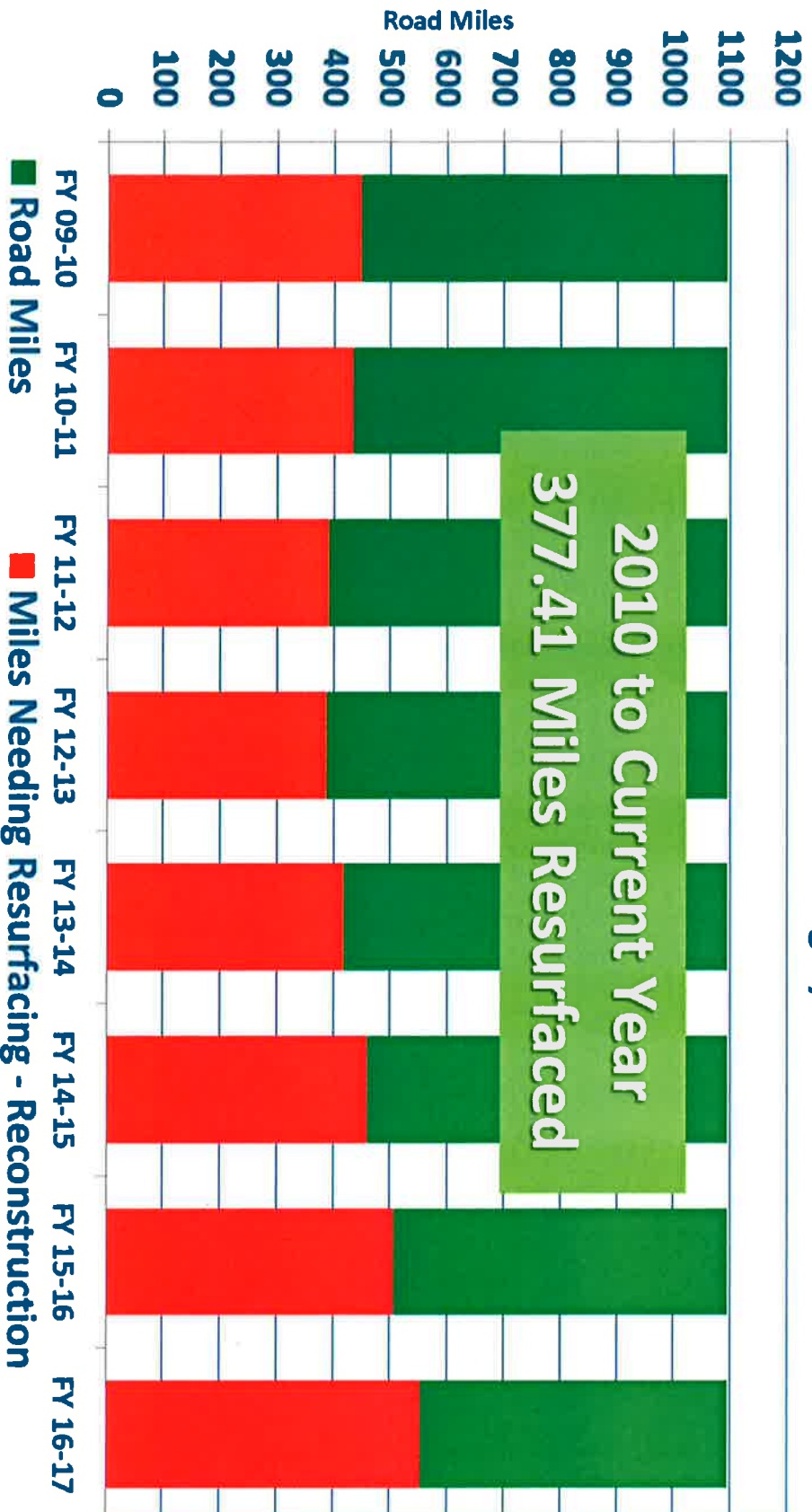


# Public Works Department

- Trends & Issues

## Consequences of Deferred Maintenance

20 Year Road Resurfacing Cycle



# Public Works Department

- Trends & Issues

## Consequences of Deferred Maintenance

**\$4 Million -vs.- \$15.98 Million Per Year Road Cost**

**1096.3 Paved Miles / 20 year cycle = 54.815 miles / year to be resurfaced**

**Average miles resurfaced = 8 miles. Leaving 47 miles not resurfaced per year**

**Cost to resurface one mile of road is \$85,000 +**

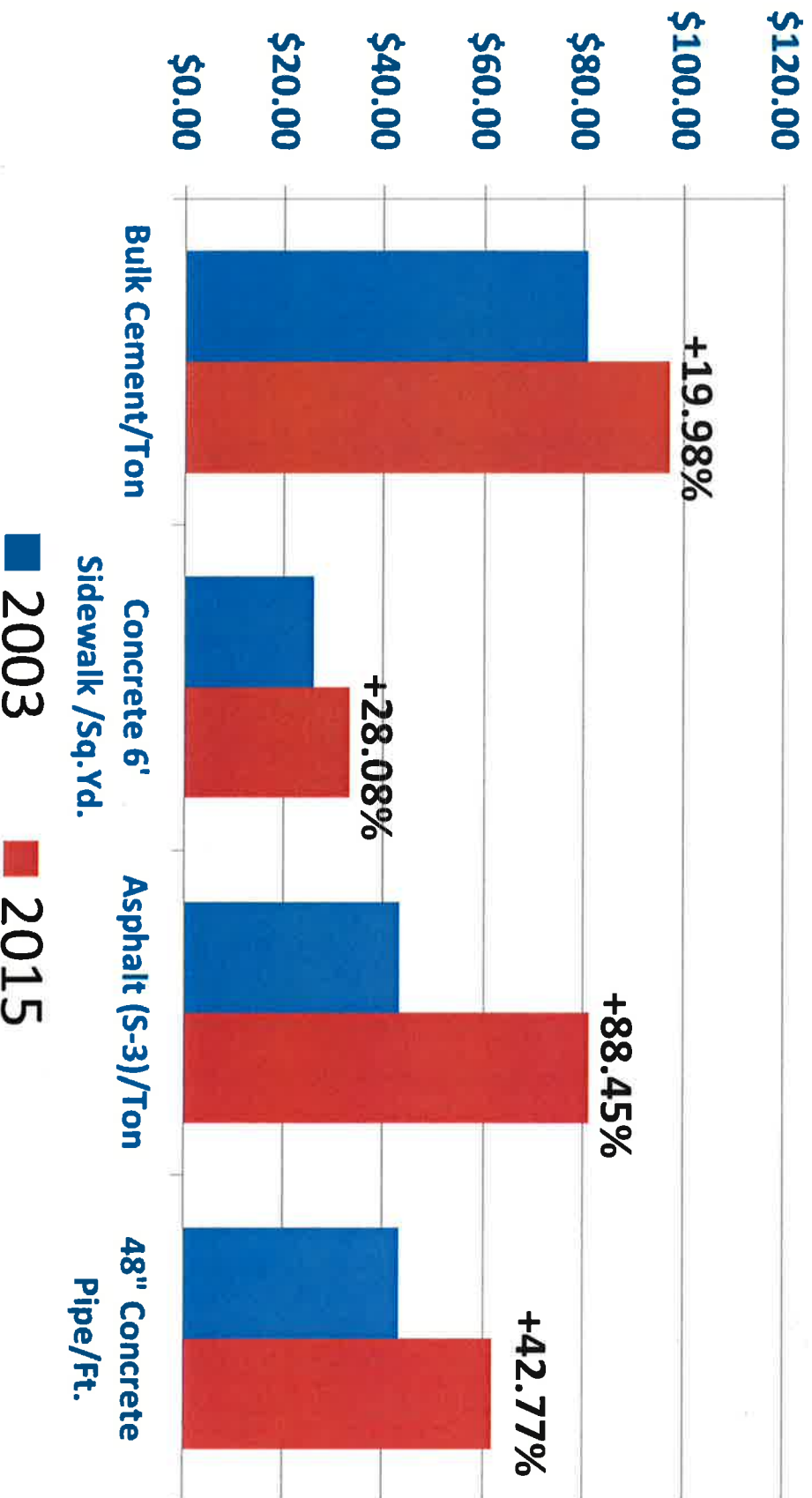
**Typical cost to reconstruct one mile of road is 4 to 7 times as much**



# Public Works Department

- Trends & Issues

## Historical Commodities Cost Increase



## Public Works Department

- Trends & Issues

### Traffic Operations Program

- Administrative Staff are overtasked and understaffed based on the volume of requests/complaints received
- Little to no time is left to allow for mentorship and succession planning
- A volunteer internship program from future Engineers has been implemented to assist in some areas, however realistically there are limits in this endeavor as interns typically choose to pursue higher salaries

## Public Works Department

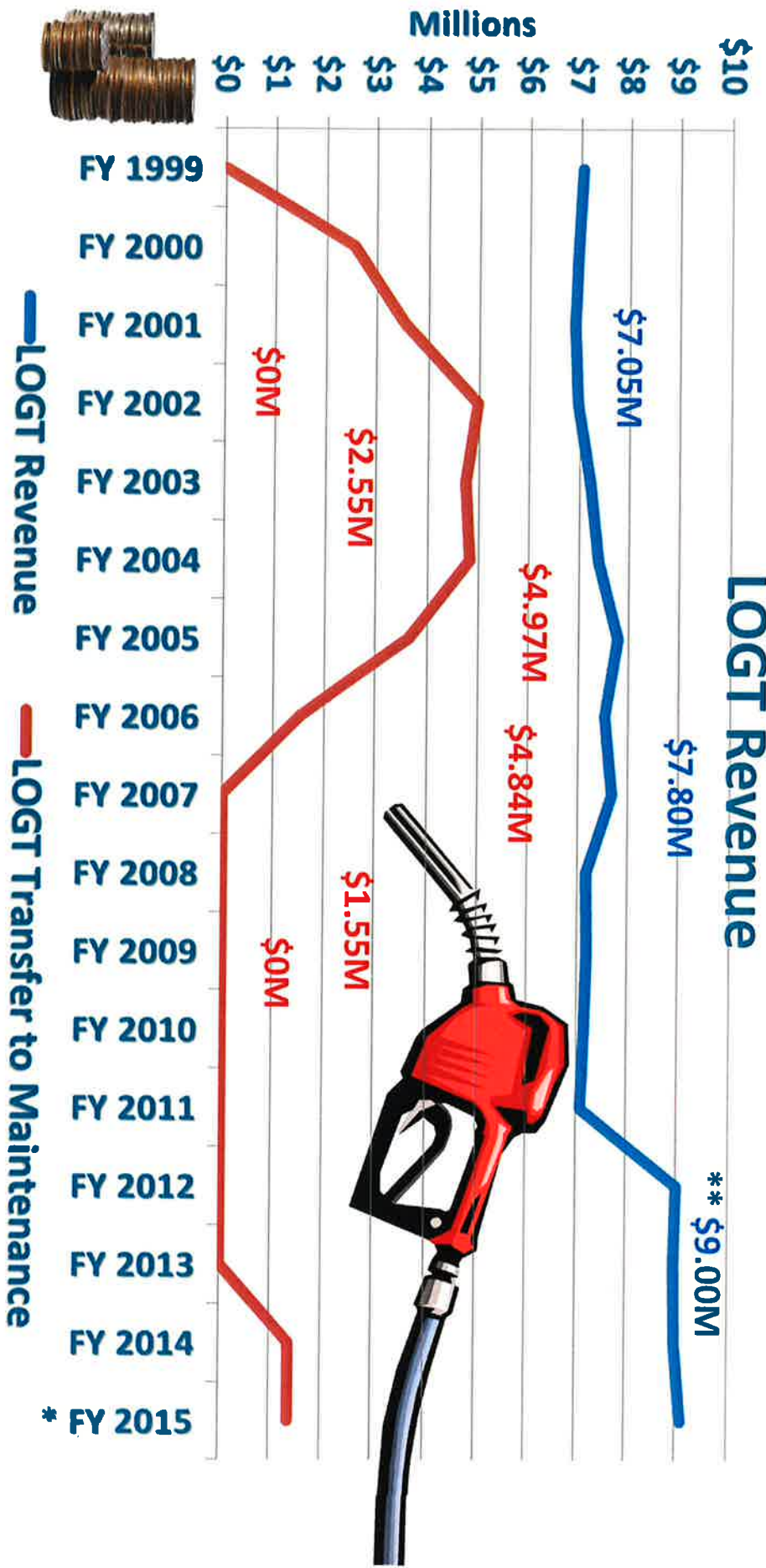
- Trends & Issues

### Service Level Impacts

- Due to the prior five years of budget cuts totaling 43% in General Fund Budget Reduction, Public Works currently is at an unsustainable funding level. Ultimately this level of funding (lack of funding) will result in reduced safety conditions with increased crash rates with associated property damage, personal injury, fatalities and flooding. The continuation of reduced funding in Public Works is known as deferred maintenance. The following graphics illustrate the net effect of reduced funding as being unsustainable.
- Road resurfacing should be on a 20 year cycle. We are operating on a 130+ year cycle (@ up to 7 times more cost to reconstruct roads)
- Road striping funding @ 200,000 should be 2M

# Public Works Department

- Trends & Issues



\* FY 2015 Proposed

\*\* FY 2012 represents an increase associated with the initial filling of a new storage tank.



# Public Works Department

- Trends & Issues

## Unfunded Transportation Projects by District

### Brevard County Unfunded Transportation Projects

District	Project	Project Limits	Project Group	Type of Project	Projected Cost
2	Imperial St Realignment	200' S. of SR 520	Maintenance	Realignment (Cost Estimate Incomplete-excludes P/W and Permitting) Pad	\$2,000,000
2	Sea Ray Bridge		Maintenance	Bridge Replacement	\$1,000,000
3	Micoo Road	at Dotlie Lane	Maintenance	Bridge Replacement-Design & Construction	\$2,000,000
Countwide	Hurricane Stock	Unincorporated	Maintenance	Traffic Signals	\$400,000
Countwide	Sidewalks	All Districts	Sidewalk	@ \$30,000 per district for 10 years	\$1,500,000
Countwide	Traffic - Striping Banklon	Unincorporated	Maintenance	Reduce Striping	\$4,000,883
<b>District</b>	<b>Project</b>	<b>Project Limits</b>	<b>Project Grouping</b>	<b>Type of Project</b>	<b>Project Costs</b>
1	Dairy Road	Carpenter Rd to US 1	Capacity	4 Lane Urban - Sidewalks	\$17,786,002
2	S. Courtenay Parkway	Fortenberry to Cone	Capacity	4 Lane Urban	\$8,087,830
3	Babcock St	Malabar Rd to S. County Line	Capacity	4 Lane Rural-Sidewalks-Design/Acq/RW	\$35,000,000
4	Washingtonia	Viera to St Johns Heritage Parkway	Capacity	2 Lane Urban/Sidewalks-R/W & Construction	\$12,500,000
5	Aurora Rd	Wickham Rd to John Rodes Blvd	Capacity	3 Lane Urban - Sidewalks	\$6,313,173
5	Malabar Rd. Ext	at Cas Canal	Maintenance	Reconstruct	\$355,096
5	Babcock St	Feet Ave to US 1	Maintenance	Reconstruct/Reconstruction	\$1,400,000
5	Babcock St	Malabar Rd to County Line	Maintenance	Reconstruct/Reconstruction	\$3,750,000
5	Riverside Drive	S. of SR 518 to N. of US 192	Maintenance	Paved Shoulders	\$525,000
5	Riverside Drive	S. of SR 518 to N. of US 192	Maintenance	Reconstructing areas not recently resurfaced	\$180,000
5	Riverside Drive	S. of SR 518 to N. of US 192	Maintenance	Reconstructing and Re-construction	\$325,000
Countwide	Presurfacing & Re-construction	40 Miles (50% of Unincorporated Miles)	Maintenance	Presurfacing and Re-construction	\$15,500,000
Countwide	Presurfacing (General/Incorporated)	40 Miles (50% of Total)	Maintenance	Presurfacing and Re-construction	\$15,500,000
1	Carpenter Road	Longbow Circle to SR 46	Sidewalk	Construction	\$500,000
1	Curtis Boulevard	Garrison Road to Song	Capacity	4 Lane Urban-sidewalks	\$10,927,246
1	Dairy Road	Carpenter Road to US 1	Capacity	4 Lane Urban-sidewalks	\$17,786,002
1	Ft 4th Boulevard	Garrison to 195	Capacity	4 Lane Urban-sidewalks	\$5,505,520
1	Garrison Road	Bridge to Kings Hwy	Capacity	4 Lane Urban-sidewalks	\$14,050,450
1	Garrison Road	Canaveral Groves to Bridge	Capacity	4 Lane Rural-sidewalks	\$7,462,257
1	Garrison Road	Industry Road to Canaveral Groves	Capacity	4 Lane Rural-sidewalks	\$3,385,320
1	Garrison Road	Perimeter Rd SR 405	Sidewalks	Sidewalks	\$558,350
1	Sisson Road	SR 405 to SR 50	Sidewalk	Sidewalks - Construction	\$800,000
1	US 1	Ft 4th Bridge to S. of Broadway	Sidewalk	Sidewalk - Construction	\$270,000
1	Knowl MacClain	For Lake Park	Sidewalk	Sidewalk - Design & Construction	Est Not Avail
1	405 Elixie Path		Sidewalk	Sidewalk - Design & Construction	Est Not Avail
1	Shenwood & Robin Hood		Sidewalk	Sidewalk - Design & Construction	Est Not Avail
1	Venol Lee Drive	Sisson Road to Goldenkaf Lane	Sidewalk	Sidewalk - Design & Construction	\$80,000



# **Public Works Department**

## ***Budget Questions***